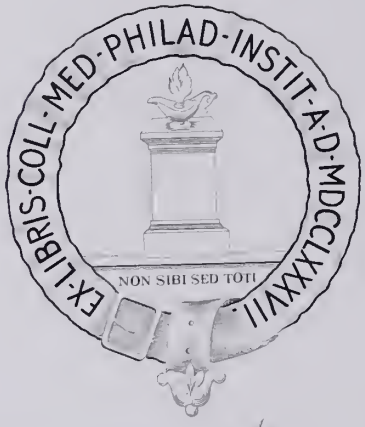
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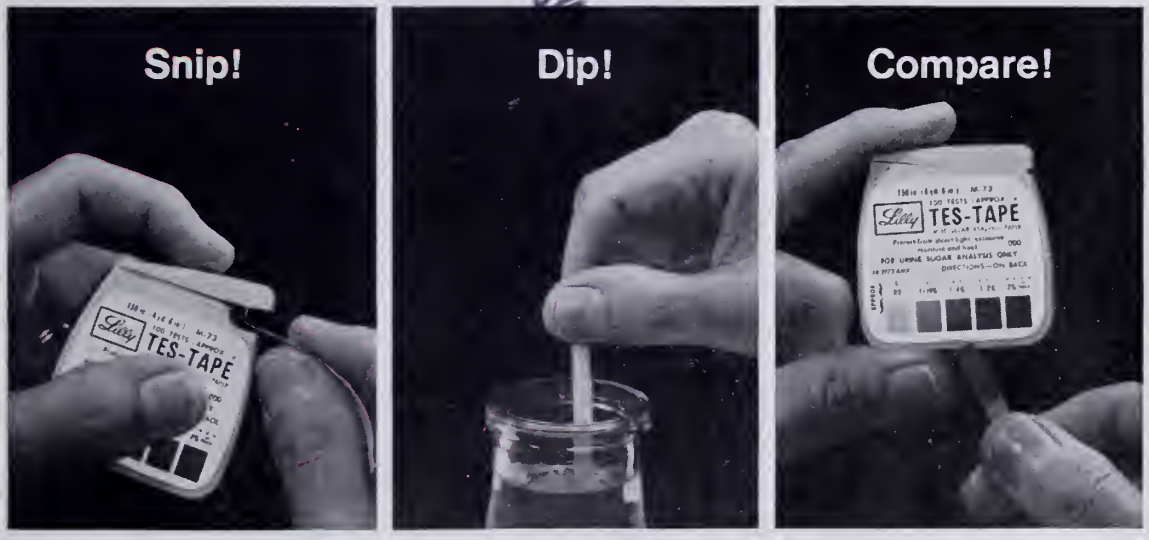
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THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA · 1873 ·

PRESIDENT'S PAGE

J. GARBER GALBRAITH, M.D., PRESIDENT



The Need For An Organized And Unified Voice

Now that the primary elections and runoffs are completed, the political scene in Alabama is quiet. The general election in November will not likely alter the current lineup of new members of the Legislature and state administration. It is vitally important that MASA through its individual members get to know personally the new members of the legislature at this time. In this way they may have the benefit of advice and counsel of our membership before the 1975 session of the Legislature convenes. This should lead to a more effective voice for medicine at that time in their consideration of proposed legislation.

The Board of Censors has determined to combine the positions of Legislative Representative and Public Relations Director for MASA and this should lead to development of an effective program to keep MASA membership well informed about all current and impending developments in the area of state government. In this way our members may be more effective in relating to their own local legislative representatives, and this has always been a most effective way of influencing the Legislature for good and against bad legislation.

On the national scene, the House Ways and Means Committee is now holding public hearings on national health insurance. The measure introduced by Chairman Wilbur Mills and Senate Health Subcommittee Chairman Edward M. Kennedy is receiving most attention. It is well to keep ourselves well informed of the testimony presented on this subject so that proper response may be made through organized medicine's representatives at the AMA level should any adverse proposals be strongly advocated. An area of special concern should be the matter of medical manpower numbers and distribution. There will undoubtedly be a national health program adopted in 1974 or 1975, and it will very likely have a section on this subject. The Roy Bill currently proposed in this regard would limit the numbers of people in each category of graduate training and would require a certificate of need before a physician could locate in any particular setting. This would certainly be unacceptable to the medical profession in its current form. This is one indication as to the need for close monitoring of the progress of Congressional hearings on national health insurance.

If medicine is to be effective in guiding actions of legislation at the state and national level, it must be with an organized and unified voice. At the national level, it is clearly evident that the AMA is the only organization capable of doing this. Consequently, we should all have our input through our delegates to the AMA and then support their decisions and policy in every way possible.

At the state and local level the situation is similar. MASA through its Legislative Committee and its Legislative Representative should carry the message of organized medicine to the Legislature. Organizations

(Continued on Page 8)

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WOMAN'S AUXILIARY

EVELYN O'BRIEN, PRESIDENT



Pending National Legislation Affecting Medicine

We in the Medical Community are finally realizing that we must be interested in legislation at state and national levels. The movement toward socialization throughout the world is being felt in our state and country and medical affairs is usually the first area to be socialized. There seems to be hope in the United States that there is a sizable group of citizens who realize that this may not be the way to provide the best medical care.

Some of the credit for this realization should be given to the AMA which has been very active in legislation in the past few years. Most of us are not aware of how active the AMA has been. The following pieces of national legislation are just a few of those which have either been sponsored or supported by the AMA: Medicredit (national health insurance), Emergency Medical Services, Amending Antitrust Laws Regarding Blood Banks, Improving Rural Health Care, Drug Labeling, Health Manpower Training (maximum funding), Nurse Training (maximum funding), Indian Health Care Improvement Act, National Health Service Corps, Comprehensive Alcohol Abuse and Alcoholism Prevention, Community Mental Health Centers Act, Drug Abuse Education Act, National Cancer Act, Extension of the Maternal and Child Health Care Program, Lead-Based Paint Poisoning Prevention Act, Communicable Disease Control Act, Medical Device Safety Act, Public Health Service Act, Family Planning and Population Research Act, Developmental Disabilities Act, Medical Libraries Assistance Act.

There is wisdom in recognizing an idea whose time has come. In the issue of the "Legislative Roundup", May 31, 1974 published by the Council on Legislation of the AMA there is a discussion of several bills effecting the National Health Service Corps Program. These bills have been introduced in Congress. Appearing on behalf of the AMA before the House Subcommittee when the committee heard testimony on the widely different aspects of these bills were Francis Coleman M. D., Chairman of the AMA's Council on Health Manpower and C. H. W. Ruhe M. D., Director of the Division of Medical Education of the AMA. They repeated the AMA's support for the NHSC and recommended amendments which would make the legislation more effective and make the Corps a "functioning reality". They emphasized the importance of assigning medical personnel to shortage areas by liaison with the appropriate medical societies.

However, there are several other bills such as the National Health Policy and Health Development Act (HR 12053) which are pending and which the AMA feels would create a public utility type of control and would impede the development of medical care (see American Medical News, May 20, 1974). It is important that we find out where our representatives stand on these issues and let them know our concern. Then let us all make sure we are registered so we can support the candidate of our choice in the general election on November 5, 1974.

PRESIDENT—Mrs. Donald J. O'Brien/PRESIDENT-ELECT—Mrs. William Hughes/FIRST VICE-PRESIDENT—Mrs. J. E. Dunn, Jr./NORTHWEST DISTRICT VICE-PRESIDENT—Mrs. Charles Howell/NORTHEAST DISTRICT VICE-PRESIDENT—Mrs. Roland Murphree/SOUTHWEST DISTRICT VICE-PRESIDENT—Mrs. Charles Weaver/SOUTHEAST DISTRICT VICE-PRESIDENT—Mrs. Robert Foy/WAMASA EDITOR—Mrs. William L. Smith.

Study Underway On Heart Attack Survivors

Physicians at the University of Alabama-Birmingham (UAB) Medical Center have begun investigations to determine the effects of regular physical activity on the rehabilitation of survivors of heart attacks.

Dr. Albert Oberman, professor of public health and epidemiology, and director of UAB's Heart Evaluation Clinic, said the studies are designed to determine the influence of regular, individually prescribed, supervised physical activity on patients who have experienced myocardial infarction.

Also, the studies will determine the effects of regular physical activity on a patient's rehabilitation following a heart attack, and identify factors which characterize those coronary patients most likely to benefit from a long-term physical activity program.

"By conducting this study," Dr. Oberman said, "we can determine the precise benefits of physical activity and the proper amount of exercise for each patient."

The study, a part of a National Exercise and Heart Disease project, is limited to men between the ages of 30 and 65 who have suffered heart attacks documented within the past 12 months.

Each volunteer must be recommended to the study by his physician and each patient remains in the care of his physician. The exercise training program itself is supervised by physicians from the study center. The referring physician will receive those project results which are important in the management of his patient.

After careful screening and comprehensive physical examinations, the patients will enter a six-week program of thrice-weekly supervised and monitored exercise sessions designed to establish safe levels of exercise.

The Heart Evaluation Center is located on the seventh floor of the Central Bank Building in a gymnasium-like setting which contains treadmills, rowing machines, and exercise bicycles.

All exercises will be undertaken in a supervised setting with continuous electrographic monitoring to detect the amount of stress for each individual.

This five-year study project is being funded by the U. S. Department of Health, Education, and Welfare Social Rehabilitation Service.

Three other universities are participating in the project—George Washington University Medical Center, Case-Western Reserve University, and Emory University.

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(Continued from Page 5)

such as ALAPAC and AMPAC have as their objectives the support of candidates who will listen to and heed our recommendations concerning legislation. Now that their work is done for the present, ours must continue if we are to be successful. As the State Board of Health, MASA is charged with the responsibility for the health of all the people of this state. The public interest must always be our first consideration in all political matters affecting health.

SIGHTS AND SOUNDS

Three new films dealing with urological surgery have been added to the Eaton Medical Film Library. They are "Ileocecal Cystoplasty," by Reuben F. Gittes, M. D. and A. P. McLaughlin, M. D. of the University of California at San Diego; "The Ideal Conduit: Stomal Location and Construction," by C. B. Hewitt, M. D. and R. B. Turnbull, Jr., M. D. of the Cleveland Clinic; and "The Technique of Radical Cystectomy," by D. G. Skinner, M. D. of the U. C. L. A. Medical School.

The previous films are full color, 16 mm., and are available to medical groups on free loan. They may be obtained by writing to the Eaton Laboratories Medical Library, 13-27 Eaton Avenue, Norwich, New York.

The American College of Surgeons offers the following films for a service charge of $7.50. This service charge includes a three day consecutive period of use and transportation to the user. Request should be addressed to the American College of Surgeons, Surgical Film Library, Davis & Geck Distributor, 1 Casper Street, Danbury, Connecticut 06810.

CORONARY ARTERIES

ACS-072 Direct Coronary Surgery for Angina Pectoris, 1963
Michael E. DeBakey 14m.

This film demonstrates successful employment of direct coronary surgery in a 50-year-old man incapacitated with frequent attacks of angina pectoris, and a similar successful procedure in a 51-year-old man with a three-year history of angina pectoris which has become incapacitating following a myocardial infarction six months previously.

ACS-729 Coronary Arterial Disease; Myocardial Revascularization Using a Combined Direct and Indirect Technique, 1968
Edward B. Dietrich, Michael E. DeBakey 18 m.

This film shows a combined direct and indirect surgical technique employed in a patient with a localized lesion in a dominant right coronary artery and diffuse disease in the anterior descending and circumflex coronary arteries. This technique uses an autogenous saphenous vein graft from the ascending aorta to the right coronary, and implantation of the left internal mammary artery into the anterior left ventricle.

DG-1074 Aorto-Coronary Artery Bypass for Myocardial Revascularization, Cine Clinic, 1970
John L. Ochsner, Robert D. Bloodwell, Charles B. Moore 30 m.

The film demonstrates the operative technic and revascularization of the heart by means of aortocoronary artery bypass grafts. Preoperative and postoperative coronary arteriograms reveal the obstructed pathway and the corrective revascularization.

HEART

ACS-006 Action of the Human Heart Valves, 1956 Karl P. Klassen 20 m.

Here the action of normal and abnormal human heart valves is simulated by mounting the fresh postmortem heart and reproducing in flow and outflow pressures of the atria and ventricles within psysiological limits. All four valves are depicted; altered function and surgical correction of congenital and acquired valvular lesions are demonstrated.

ACS-799 Action of the Human Heart Valves—Number two Charles V. Meckstroth, Karl P. Klassen 23 m.

This film correlates valvular disease of the human heart with surface anatomy, circulation, normal valvular anatomy, and cinematographic studies of the heart chambers and valves. It also shows the surgical procedure

of implanting ball valve prostheses in the mitral and aortic areas, and an homologous graft in the aortic position.

DG-563 Valvulotomy for Valvular Pulmonic Stenosis, Cine Clinic, 1955 Direct visual procedure with hypothermia—H. William Scott, Jr. 27 m.

By brief interruption of the flow of blood into the heart under moderate hypothermia, incision can be placed in the pulmonary artery and under direct vision, complete relief of valvular obstruction in congenital pulmonic stenosis may be accomplished in a simple and precise manner.

ACS-151 The mitral valve Dynamic Pathology and Surgery, 1957

This film demonstrates the action of the mitral valve in normal and disease states, as well as techniques for surgical correction of mitral stenosis and insufficiency. It also points out mechanical impairments resulting from rheumatic heart pathology compared to the normal.

ACS-646 Management of the Patient Undergoing Surgery for Mitral Stenosis, 1967 21 m.

Robert S. Litwak, Barbara Lipton, Murray G. Baron, Howard L. Gadboys

This film shows, in addition to the techniques for corrective surgery the management of the patient as a whole prior to, during, and after surgery for mitral stenosis.

Unless otherwise stated the above films can be ordered from the American College of Surgeons at a cost of $7.50 per three day period which includes transportation to the users. Address your order to: American College of Surgeons, Surgical Film Library, Davis & Geck Distributor, 1 Casper Street, Danbury, Connecticut 06810

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THE JOURNAL
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Volume 44 July 1974 Number 1

Education For Family Practice

G. Gayle Stephens, M. D.
Huntsville, Alabama

EDITOR'S NOTE: *Dr. Stephens spoke to the MASA Annual Meeting in Huntsville, Ala., on April 19. The following is a copy of the speech Dr. Stephens delivered at the second scientific session of the meeting.*

Men are often prone to ascribe unusual significance to the time in which they live. The past is always more or less obscured by the poignant immediacy of our own experiences and we so easily forget—or find it so hard to imagine—the realities of another time. Physicians are no exceptions to this general tendency and notwithstanding our reputation for controlling our emotions clinically, we all tend to be romantics about the profession of medicine. We have a strong sense of history and tradition, we revere our heroes and we feel obligated to protect our profession and to pass it on to future generations as bright and as whole as it was given to us.

One of the recurring myths of physicians is that of the "golden age"—a time when the art and science of medicine was pure and unsullied and medical heroes were giants in the earth slaying the dragons of disease. I still remember the romantic fires that were kindled in my own imagination as a freshman medical student at Missouri when I was introduced to Virchow, Rokitansky, Pasteur, Freud and of course the Hopkins 'big four', Osler, Welch, Halstead and Kelly. I read a novel about a medical student boarding house in Baltimore circa, 1910, "Miss Susie Slagles," that provided me with hours of day dreams about myself at Hopkins.

But I also experienced another aspect of the 'golden age' myth that I have discovered to be a recurring theme in generations of physicians. It is that we are now living in the *last* golden age. Things are so out of control and the pure art and science of medicine are being so degraded by political influences that the future can never be as good as the past.

I took this pessimism seriously in my first years in practice—and I even developed some sympathy for the views I heard expressed by colleagues that things were getting so bad that they would not want their sons and daughters to become physicians. But then I began to detect the "last golden age myth" here and there among physicians much younger than I, and I began to realize that I had succumbed to a delusion of cultural and historical myopia. There never *had* been a golden age except in my imagination—and if there had been, those who lived in it would not have recognized it as such. The golden age is always best seen through the retrospectoscope.

From a low point in the early 1960's I began to reexamine my feelings and assumptions about being a physician and about the state of the profession in general. I gradually gave up my professional defenses and began to become aware of the challenges to medi-

cine in which I could participate in my own sphere of influence. I did not foresee then where all this would take me. I had no special ambitions about medical education and I certainly could not have predicted a move to Alabama. And I have recovered my dream of the golden age. It is now! It has always been now—for Charcot, Pinel, Reed, Minot and Murphy, Salk and all the rest. Now is all we have and if this present does turn out to be somebody else's golden age it will be because we grappled creatively with the problems of our time.

I have shared this personal account with you as a preface to remarks I wish to make about medical education. Some of these remarks may be interpreted as critical. Criticism *per se* is not my intent. You should understand that any quarrel I have with medicine is nothing but a lover's spat.

There are three movements that can be identified in medicine in this century in the U. S. The first occurred in the first three decades and might be termed the *Flexnerian Era* because of the remarkable impact of the Carnegie Commission Report conducted and written by Abraham Flexner. The second grew out of the first and can be described as the *Research Era*, receiving its greatest impetus in the 40's and 50's largely as a result of the Federal Governments' support to medical schools. The third dates from the mid 1960's to the present and for lack of a better term may be called the *Era of Consumerism*. None of these movements is isolated and discrete and each of you undoubtedly would have selected different words to describe them. But if you will grant me this terminology for the present I would like to share with you some comments about where we are in medical education in Alabama in relation to these three movements.

The truly remarkable fact is that we have experienced these eras within the life-times of a number of physicians now living. Times have been telescoped and history compressed within the range of our memories. Medicine has moved from guild to profession, from trade school to university, from rank empiricism to inductive methodology. The benefits of these metamorphoses to the nation and to the world have been enormous and it should not be surprising that the costs have also been enormous or that the benefits have not been evenly distributed.

It is instructive to re-read the Flexner Report. The state of medical education in the U. S. in 1910 was abysmal, and the country—believe it or not—was over populated with poorly trained physicians. Medical schools were mostly proprietary, criteria for admission were indefinite and erratically enforced, curricula were incomplete and teaching was a side line for practitioners trying to supplement their incomes. Flexner scathingly denounced these conditions quoting chapter and verse fearlessly. His recommendation was clear. Medical education was too serious a business to be left in the hands of physicians, it belonged in the *educational system*—i. e. in the university. Admission requirements should be standardized, faculties should be full-time and research should be pursued. Pending the accomplishment of these changes many schools should be closed. There were too many doctors anyway.

Amazingly enough the Flexner recommendations were carred out in State after State. In Alabama the medical school in Mobile was closed, a two-year pre-clinical school was established in Tuscaloosa and Birmingham became the site for establishment of a new four-year school at an appropriate time —just as Flexner prophesied.

The School of Medicine at Birmingham epitomizes as well as any the Flexnerian medical school in the Era of Research. Begun in the late 1940's the timing was ideal for capitalizing on the post-war committment to biomedical research by the Federal Government. Under far-sighted administrative leadership a faculty was recruited who have been outstandingly productive in basic and applied research and have turned out class after class of medical students who are equal in

knowledge to the most prestigious schools in the country.

In the past decade a new era has been entered that poses new challenges and new stresses for medical education in Alabama—the Era of Consumerism. The roots of consumerism go deep into American social and political consciousness and affect medical education and practice secondarily—radically to be sure but secondarily. Consumerism is a mid-twentieth century expression of the American dream of democracy and social justice. Simply stated it is the effort of our society to see that every citizen has an opportunity to share in the best that our system has to offer—education, jobs, housing, welfare and health. Notwithstanding the limited success of the multitude of the Federal programs that constituted the "War on Poverty" of the 1960's the message was clear. The nation was calling itself to account for the arbitrary and unequal distribution of resources—including health. The lavish expenditures on biomedical research in the 40's, 50's and 60's resulted in dramatic successes in relation to specific diseases—notably polio—but it did not result in the production and distribution of appropriate numbers and types of physicians and did not make equally high quality health care evenly accessible to all the people.

So now the medical education system is under pressure to respond to the demands of Consumerism. Admit more students. Shorten curricula. Turn out more general physicians. Pellegrino has correctly pointed out that these demands are arising outside the medical education establishment—from state legislators, health planners, the general public and even from non-academic practicing physicians.

So far the response to these demands of greatest magnitude and vitality has been the Family Practice movement. After a decade long struggle the American Board of Family Practice was established in 1969. This opened the door for formal residencies in Family Practice which now number almost 200. There is evidence that 20 per cent of this year's (1974) graduating senior medical students listed at least one Family Practice residency as a choice for graduate training. Almost 6,000 practicing physicians are now certified by the ABFP. Surely these developments indicate rapid evolutionary if not revolutionary change.

What are the elements of education for Family Practice? First some disclaimers—1) It is not primarily for the political survival of general practice; 2) It is not a sell-out of real medicine to less substantial subjects; 3) It is not anti-intellectual; and 4) It it not mainly a recovery of humanism in medicine.

Family Practice is an educational movement that is being called into existence by the times. It is partly a recovery of something that has been lost and it is partly an extension of clinical science to contemporary epidemiology. There are four salient characteristics:

1. It emphasizes these aspects of biomedical technology most appropriate to the most common and most important sicknesses of our time.
2. It emphasizes medical practice.
3. It inculcates behavioral sciences.
4. It includes the physician as an item in the curriculum.

Each of these requires comment and definition but that will have to wait for another occasion.

What I want to do in my remaining time is to discuss with you some ideas about how the State of Alabama can produce a sufficient number of family physicians in the next decade. To the best of our knowledge Alabama currently has about 700 general family physicians. In order to reach a ratio of one family physician to 2,500 people, this

State needs twice seven hundred or 1400. Taking into account the expected annual attrition of physician now in practice we estimate conservatively that Alabama needs to produce 100 new family physicians annually for the next decade to meet a modest goal. At present the State can produce 12 residency trained family physicians per year—6 each at Huntsville and Tuscaloosa. We have a net deficit of 88 per year. Is it possible to make up this deficit? There is reason to believe that it is. If the resources of community hospitals, practicing physicians, medical schools and the State treasury can be marshalled the goal of 100 residents graduating per year could be achieved.

This will require the establishment of new programs, the linking together of programs in a way that improves quality and limits expense and has the committed support of the medical educators in the State.

The specific issues that must be addressed if this challenge is to be accepted are as follows:

1. Establishment of a Statewide planning and coordinating body with representation from:
   a) Organized medicine
   b) Medical education
   c) Hospital administration
   d) Health planning
   e) Higher education planning
   f) Units of local and state government
   g) Medical students
   h) The public
2. Assess the available resources
   a) Hospitals
   b) Physician faculty
   c) Non-physician faculty
   d) Outpatient facilities
3. Devise an academic plan.
4. Prepare an estimated budget.
5. Present the plan and budget to appropriate authorities.

Several of these steps have already been discussed by a diverse group of 78 concerned health professionals who met in March of this year in Huntsville as part of an ARMP sponsored project being conducted by the SPMC. Most of us who attended this conference were impressed by the seriousness and the optimism of the participants. A report of this project is being prepared for ARMP and will provide a documentary resource of the subject of family practice education in Alabama.

Family Practice education has moved beyond the state of romance to a stage of precision in the past 5 years. Medical students are interested in it in increasing numbers. The AMA has stated that 50 per cent of graduating medical school classes should go into primary care of one form or another. It remains to be seen whether the State of Alabama will respond to these challenges and establish programs that will go far towards solving the health care delivery problems that plague the State. If it does we could very well experience another golden age in medical education that will answer affirmatively the question posed by John Knowles, "Could this be the Flexnerian revolution for the last half of the Twentieth Century?"

Demonology And The Laying On Of Hands

Wallace Marshall, M. D.*
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Although a paper was written by the author (1) which concerned the devil, little did he realize at the time that marked public interest would develop about exorcism. This was fostered mainly because of a book and movie, both bearing the title of "The Exorcist" (2) which produced mixed public reactions with great interest.

Exorcism is a very old belief which came into public focus when an individual supposedly became a tool of the devil. The heroes, two clergymen, used religious rituals to free the cursed child from devilish possession and the constant utterance of four letter swear words which could not help but shock the readers of this book and the viewers of the same movie. Reading that volume raised ample disgust in this author to preclude his viewing that movie lest he raise a commotion and uproar which might have produced his arrest and confinement in jail for disturbing the peace.

During the 15th Century Kramer and Spengler wrote a volume called "Malleus Maleficarum." In it they wrote of a lad who was supposedly possessed of the devil. So they took the boy to Rome to be delivered of the devil who made the youngster "thrust out his tongue at the glorious Virgin." The devil spoke obscenities through the boy and was supposed to have attacked him.

Obviously, superstitions, delusions, and witchcraft flourished during these times. But apparently such goes on even during these supposedly enlightened times. This writer is treating a young unmarried girl who complained of similar troubles since she thinks the Holy Ghost is making her blaspheme Christ and God. All this began after she listened to a minister speaking about the devil. She prayed for help, but since it was not forthcoming, she began cursing deity. This patient is responding nicely to psychiatric medication and therapy.

Janet was among the first psychiatrists to write a two-volume work called "Obsessions and Psychasthenia" in which he explained such psychopathology by explaining what fatigue and depressions can produce. Although the belief in demons was discouraged by science during the 19th Century, these same abnormal behavioral phenomena persist during this enlightened period of time.

One of the greatest authorities on demonology was Sir James George Frazier (1854-1941) whose twelve-volume "Golden Bough," first published in 1890, which still remains a collector's item. This work later appeared in a two-volume edition and finally in one volume. I spent many fascinating hours while a student reading from the original twelve books which I discovered in the University library. Frazier emphasized that three stages followed the development of thought from its magical aspect to the religious interpretations and then finally to its scientific aspects. His magical aspect, Frazier believed, was based upon faulty reasoning. The religious portion was used to appeal for assistance to spiritual beings.

Allow me to construct a faulty and illogic approach found with witchcraft. Poltergeists are alleged to be tiny demons who, among other nefarious pranks, can cause dishes to rattle. Earthquakes also cause dishes to rattle. Therefore, it can be argued that poltergeists cause earthquakes. This faulty logic is but another example of the legal and medical admonition, *post hoc ergo propter hoc,* which means after this, therefore, on account of this, which is certainly illogic reasoning. As an example, the postman delivers the mail. If you don't receive any letter, then he is the cause of your disappointment. The vastness of human credulity led the famed circus owner, P. T. Barnum, to remark that a sucker is born every minute! People sometimes seem to want to be fooled or misled!

In primitive times human diseases were thought to be caused by evil spirits which existed outside of the body. These took the form of demons, witches, evil spirits, magicians, or even gods (3). Thus, religious and magical practices were employed to rid the affected individual of his demonological possession. Trance states were employed by the therapists of those times along with various rites of a religious nature to rid the patient of such demoniacal possession. Thus, exorcism was employed as an adjuration to cause the demons and other evil spirits to make their exit. Exorcism consists of an elaborate ceremony of the Christian Church to release persons who have come under the power of demons. Since Christ was supposed to have expelled demons, His followers, therefore, drove out demons in the name of Christ under canon law of the Roman Catholic Church.

However, the Anglican Church of England performed more than 900 exorcisms in one of its churches just this past year. This should help fill the church coffers!

Laying on of Hands

Now came an unusual and a rather unexpected procedure which became incorporated in the cleansing of the individual from his demons. The laying on of hands was and still is employed in the ritual of exorcism and with other religions and even medical therapy as will be described later.

Judaism originated the imposition or laying on of hands for three purposes. The first was connected with the act of consecration for the service of God. Then it became incorporated with the transmission of a divine gift with one's sacrifice to his god. Then the act linked the worshipper with his gift or sacrifice. In Christianity, these were used similarly with regard to baptism and also the ceremony connected with ordination. Baptism with the laying on of hands was concerned with the setting apart for the Lord's service and is connected with the gift of the Holy Spirit. It is interesting that this term of the Holy Spirit is also called the Holy Ghost, which belies its origin in mysticism and possibly demonology. The laying on of hands was also an important method for healing the sick and for the reconciliation of non-believers and penitents. The act is employed also extensively for ordinations and confirmations.

From the above data, one can discern the setting of the stage for later studies which followed in early anthropology, psychology, and psychiatry. The laying on of hands became a powerful tool for the clergy and for certain nefarious individuals who gained power, financial and political, through their manipulations with this practice.

Some Master Manipulators

The laying on of hands brought about the production of trance states and finally hypnotism. Charcot, Janet, and Freud were only a few of the famed medical therapists who employed this form of healing. But there were o t h e r s who were not scientifically oriented nor particularly honest intellectually. Just two examples of these questionable practitioners of that art will suffice, for "knowing one's stuff" paid remarkable dividends for the following two charlatans.

Count Alessandro Cagliostro, born with the name Giuseppe Balsamo (1743-1795), accused of minor crimes, fled through Greece, Egypt, Arabia, and Malta. He married the daughter of an influential Roman family and then assumed the title of Count. He dabbled in secret potions and elixers of youth and finally gained great fame in Europe's best circles. He practiced the laying on of hands which greatly assisted his supposed healing powers. But he finally landed in jail where he died.

Of r a t h e r recent vintage was Grigory Yefimovich Rasputin (1871-1916) who became an expert with the laying on of hands. He became regarded as a holy person with prophetic powers. In the course of time, he met the Grand Duke of Russia and supposedly "cured" a young czarevich of hemophilia (which is quite a trick if one can do

it). His power extended to the church and then to politics where he created and fired his cabinet ministers at will. Finally Prince Yusupov poisoned the wine Rasputin drank. But when he didn't die he was shot and his body was thrown in a river. But the Empress had him buried near the imperial palace at Pushkin. (What a coincidence that the encyclopedia's (Collier's) next topic in that volume deals with rats.)

By this time, it should be obvious that mankind can become gullible to fakery, black magic, and demons. Perhaps the cause for this phenomenon is based upon public ignorance with a goodly portion of the fear factor (emotional stress) thrown in.

But the laying on of hands led Charcot at the Saltpetriere Hospital in Paris to discover facts about hysteria and related emotional disorders. His pupils, such as Pierre Marie and Sigmund Freud, further developed the practice of psychiatry which had its origins in demonology.

The laying on of hands had its good points because it led to studies in medical practice which dealt with the setting of broken bones, with percussion (a real art in its own right) and with palpation of the bodily organs such as the liver, appendix, etc.

Perhaps you may recall but a few years ago, the famed healing ceremonies which were staged by Rev. Oral Roberts before packed audiences, night after night, who sat spellbound as the Reverend placed his hands on the head of some ailing parishioner and exclaimed, "Heal! Heal! In the name of the Father and Son, heal!" If the ensuing results were questionable, the same act was repeated, and finally the perspiring recipient of the laying on of hands shouted, "I'm healed," amidst happy shoutings and the hand clapping from the grateful audience! I have no idea just how long such "healing" lasted, but I do know that the Rev. Oral Roberts established a beautiful and viable university which bears his name. He often said, "I do not heal; the Lord does this through my hands!" So this is one way to have a university named after you.

Oh, yes! Don't forget those modern group therapy sessions in psychology where the patients hold each other's hands. This is powerful stuff! I wonder if the magic circle enters into the picture as these patients touch hands.

Modern Witchcraft

A few days ago I heard on the radio of some pollster who discovered, among other shocking facts about demonology, that one third of the population believes in the occult and related topics. Many stated that their own family members were possessed of the devil at one time or another! How can people remain so ignorant in this day and age when our astronauts have visited the moon several times? Apparently scientific knowledge cannot touch and control such ignorance to a sufficient degree.

Even in New Orleans there is a drug store which still sells all sorts of wierd merchandise, such as magic potions! There must be a lot of people who still believe the moon is made of green cheese!

I found a remarkable paper bound volume in New Orleans, the book's name is "The French Quarter," written by Herbert Asbury (4). He described the practice of voodoo, its queens and doctors. S u c h celebrities as Sanete Dede, Marie Laveau, and Melvina Latour apparently wielded great political power along with their other overt and hidden charms. Voodoo spells were cast upon various persons who ran to other voodoo cultists to have the curses broken. Beside the negroes came w h i t e charlatans who sold charms, amulets, and various powders possessed of magical powers, which in one particular situation, contained about ninety per cent Epsom Salts which should flush the body of demons and other things without too much trouble.

Not so long ago I witnessed a meeting of witches and demons via T. V. Similar cults

exist in England and America, this enlightened land of ours! These possessed people follow ancient cults and practices as a particular brand of religion. Perchance anyone locates some poltergeists, please send them to me. We can use them in our psychology laboratory, since it will be much cheaper to keep them than continually feeding our white rats! We'll even provide these poltergeists with dishes they can rattle! Remember that it is not nice to fool Mother Nature! Supposedly normal youngsters take illegal drugs to e x p e r i e n c e hallucinatory experiences, while many neurotic and psychotic people should be receiving psychologic and psychiatric therapy. They do not follow *Ne sutor supra crepidam,* which means let not the shoemaker go beyond his last, or let no one meddle with what lies beyond his range!

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Additional data was used freely from Collier's Encyclopedia, 1965 Edition, and from the Encyclopedia Britannica, 1973.

Our thanks are extended to Mrs. Ouida Arsenault of the Montgomery Baptist Hospital, Montgomery, for her kindness in typing this article.

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Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.
PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.
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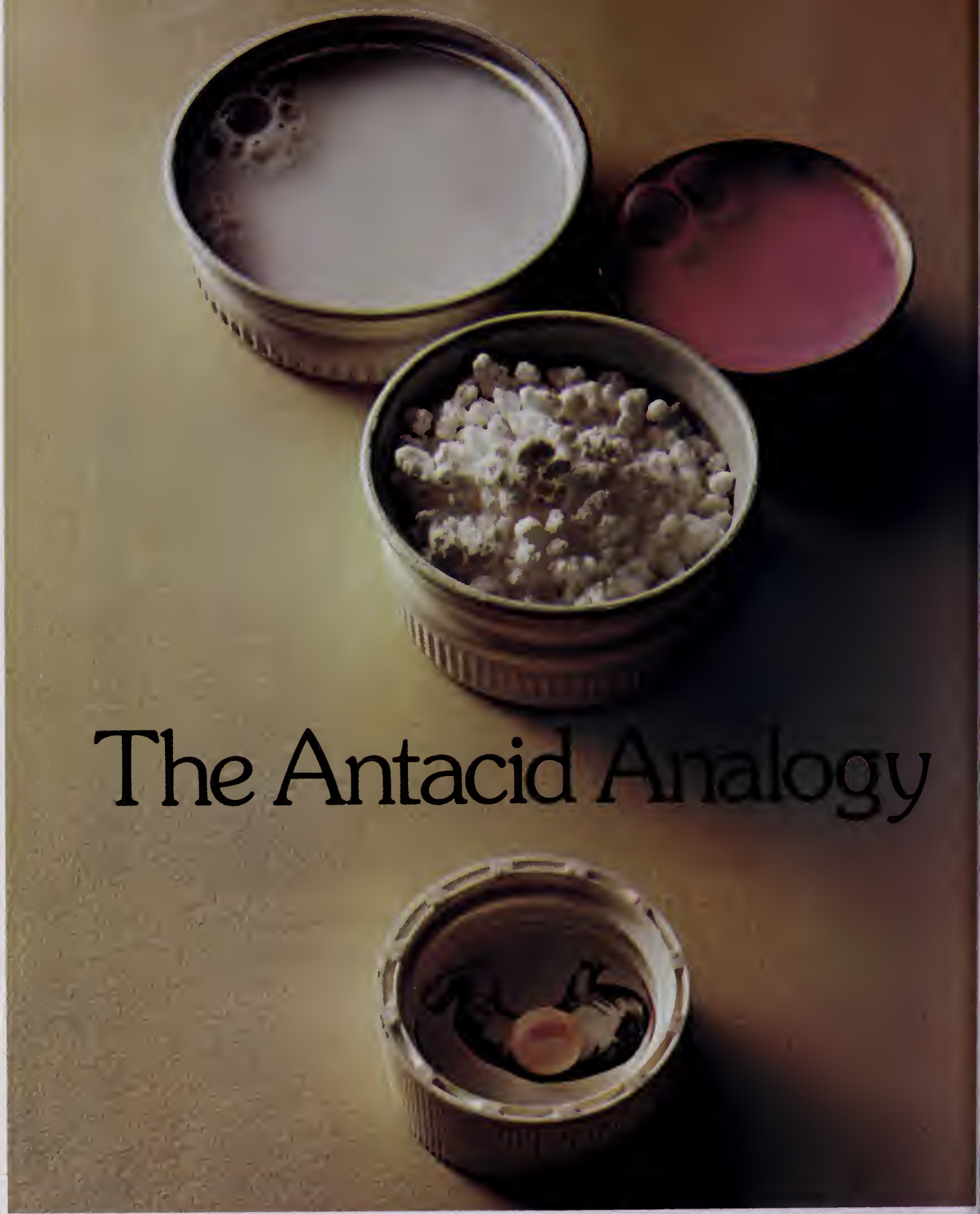
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*Innes, I. R., and Nickerson, M., in Goodman, L. S., and Gilman, A. (editors): The Pharmacological Basis of Therapeutics, ed. 4, New York, The Macmillan Company, 1970, p. 537.

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Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.
Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.
Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.
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MEDICO-LEGAL DIALOG

Medical Malpractice Litigation

James J. Duffy, Jr.
Mobile, Alabama

The first reported case of medical malpractice in the United States was a case decided in 1794 in Connecticut wherein the plaintiff charged the physician with negligence in his care of the plaintiff's wife, it being alleged that the doctor acted ". . . in the most unskilled, ignorant and cruel manner, contrary to all the well-known rules and principles of practice in such cases, that the defendant had wholly broken and violated his undertaking and promise to the plaintiff to perform said operation skillfully and with safety to his wife." The physician was found liable and a judgment was entered against him. Since that early precedent, throughout the United States and particularly in urban areas medical malpractice lawsuits have explosively increased and this is particularly true in recent years.

This article is not intended to be a legal dissertation replete with complex judicial reasoning and long citations of decided cases. The writer's intention is to look generally at the problems which confront a physician in a malpractice situation and to emphasize to you the importance of meeting with your lawyer in a cooperative spirit in an effort to displace any existing feeling of distrust and antagonism toward the legal profession with an attitude of trust, cooperation and mutual respect.

In considering the broad scope of the entire problem, it is of value to address yourself generally to some practical considerations which might explain, in part, why malpractice claims arise, and, perhaps more importantly, why malpractice claims are on the increase at the present time. In this connection, you must accept the thesis that on a nationwide basis the trend is toward the filing of more and more malpractice claims.

Several years ago, the director of the American College of Surgeons observed that: "It is reliably estimated that one-half of the surgical operations in the United States are performed by doctors who are untrained or inadequately trained to undertake surgery." In the same vein, another prominent physician stated, in an article appearing in the New York Journal of Medicine that: "Errors in judgment or technique concerning either the anesthesia or the surgery, or a combination of the two, contribute close to 50 per cent of the mortality in the operating room. It is here that death occurs, not only because of the gravity of the disease or the magnitude of the procedure, but also because someone in a responsible position ignored some fundamental principle of good therapy."

In an article appearing in *Medical Economics* several years ago, the writer, himself a physician, stated that: "If patients brought malpractice suits against all guilty doctors —and against guilty doctors only—the courts would probably be flooded with three times the number of such suits now in litigation . . . ."

If the above statements by reputable physicians are even approximately accurate, the medical profession would be well advised to reexamine its techniques and procedures for the gravity of the problem is undeniable. Surveys conducted by various interested physicians and surgeons have disclosed that the medical specialists most frequently involved in malpractice litigation are (1) obstetricians and gynecologists; (2) orthopedic

surgeons; and (3) general and thoracic surgeons. These surveys indicate that approximately 70 per cent of all malpractice claims made are surgery related.

The physician is not necessarily guilty of malpractice every time there is an adverse result. On the contrary, in most instances, he has done everything humanly and medically possible to effect a cure. It is for this reason that lawyers should hesitate before bringing a lawsuit against a physician for charging a physician with professional neglect is a serious matter and should not be done without deliberation and, in this connection, a lawyer has a duty and a responsibility not to proceed with such a lawsuit unless he is fully satisfied, after talking to other physicians, that professional neglect has, in fact, occurred.

In ancient days, a physician practiced his profession at considerable risk. He was, in fact, an insurer who performed his treatment at his own peril. The Code of Hammurabi, some 4000 years ago, provided: "If the surgeon has made a deep incision in the body of a free man and has caused the man's death, or has opened the caruncle in the eye and so destroys the man's eye, they shall cut off his forehand." A lower penalty was provided for injury to a slave. This was in the Babylonian era and the ancient's method of dealing with medical malpractice was predicated on the success or failure of the surgical operation. Understandably, there were very few surgeons in active practice.

With the increase in medical malpractice lawsuits, there is and has been an increase in adverse verdicts against physicians and surgeons. A prominent plaintiffs' lawyer predicted several years ago that he expected to recover a jury verdict against a physician for as much as $1,000,000.00 or more, depending upon the type case involved, and in the recent past there have been several verdicts in excess of $1,000,000.00 returned against physicians and surgeons and hospitals. In the not too recent past, an out of court settlement of a suit of this sort was considered to be tantamount to an admission on his part of liability. This is not necessarily the case today and we see out of court settlements being made in amounts ranging from nuisance payments up to very substantial sums. As a result, you all know that medical malpractice insurance costs have risen and now constitute a very important item in the physician's budget.

There are any number of reasons for the increase in medical malpractice lawsuits not the least of which is the advent of no-fault automobile insurance. Lawyers who, in the past, handled "who ran the red light" cases now find that either no-fault applies or that automobile liability insurance companies are settling these cases before they reach the lawsuit stage and, therefore, these lawyers are now looking for other people to sue, the result being that physicians and surgeons, architects and, indeed, members of the legal profession are being sued for professional neglect. Another reason for the increase in medical malpractice litigation is the increasing failure or lack of doctor-patient rapport. The day of the horse and buggy and kindly family doctor has disappeared from our contemporary scene and with it has gone much of the doctor-deity image that was historically attached to the family doctor.

A part of the problem in the diminishing rapport situation is the failure of communication and understanding between the doctor and his patient. The public image of the physician has received much adverse attention in the form of television plays, public speeches and the like. Nationwide magazine articles appear from time to time in which a very poor impression of the physician is displayed. These have a tendency to encourage medical malpractice suits by showing the many ways in which a physician can harm his patient and by then indicating the attractive high monetary return if a lawsuit is brought against the so-called offending physician.

Oftentimes a physician will say something to the patient which the latter does not understand and, with his volume of business, the physician does not take the time to ex-

plain or concern himself with the fact that the patient may not understand what has been said. It is unnecessary to remind you that doctors use a language and use a terminology which are foreign and not understood by the average patient.

As a physician takes less time with a patient and becomes less and less involved with the patient's personal life, the attitude appears to the patient to be one of indifference which, of course, the patient resents.

Another reason for the increase in medical malpractice litigation is the specialization which the practice of medicine has achieved. The specialist does not see the patient as a whole patient nor does the patient see the specialist as a whole physician. The specialist is concerned with a hand or an eye and the patient sees him as his "bone doctor" or as his "eye doctor".

Digressing for a moment, the duty imposed upon all physicians is that he possess that reasonable degree of learning and skill that is ordinarily possessed by physicians and surgeons in the locality where he practices. This "locality rule" is, in the opinion of the writer, becoming obsolete. Several generations ago there was sound reason and justice in the application of this locality rule under which a dissatisfied patient was required to establish negligence by presenting expert testimony from one familiar with the practice of medicine in the locality in which the defendant doctor practiced. The standards of medical education in various schools varied widely from one geographical area to the next and transportation was difficult not to mention communication between widely separated physicians. The situation is vastly altered today and the courts are acknowledging the changes. Medical schools are required to be accredited and the curricula in such schools is very standardized. The requirements for licensure of individual physicians are similarly standardized. There is wide circulation of medical journals presenting the most current findings in the

(Continued on Page 29)



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(Continued from Page 27)

healing sciences. It is the duty of the physician to exercise reasonable care and diligence in the application of his skill and learning and a deviation or departure from the customary standards of care will render him liable if this results in some injury or misfortune to the patient. The law does not require that the physician or surgeon possess some extraordinary learning and skill which might belong only to few men of rare endowments nor does the law require the exercise of the highest possible degree of care. The physician is not liable for a mere error of judgment nor does he guarantee a good result.

Some of the plaintiffs' lawyers, ostensibly for the purpose of reducing the number of medical malpractice lawsuits, have been and are now recommending some type of screening plan or screening committees. The idea is that a committee composed of doctors and lawyers would be established and persons with potential medical malpractice lawsuits would appear before the committee for the purpose of having that committee determine whether or not there are reasonable grounds to believe that professional neglect has occurred. In some sections of the country such committees have actually been appointed and are active. The procedure varies from one community to another but the idea is the same and that is to determine whether or not there are reasonable grounds to believe that medical malpractice has been committed and, further, whether that has been the proximate cause of the misfortune of the plaintiff. It is the recommendation of the writer that no such procedure be followed in Alabama. My experience has been that if such a committee as this were to find that there are no reasonable grounds to believe that the physician has been guilty of neglect, this does not necessarily deter the persistent plaintiff from obtaining a professional prostitute from New York or Miami to testify that there has been some professional neglect. On the other hand, if such a committee were to find that there are reasonable grounds to believe that medical neglect has been committed by the physician involved, then, although the idea is to encourage an out of court settlement, it is logical, based upon the experience of lawyers defending cases of this sort, that the plaintiff and the plaintiff's lawyer are going to seek enormous sums of money in settlement or try the case with the doctor members of the committee testifying as expert witnesses against the defendant doctor.

There are other reasons for this increase in medical malpractice litigation. One of these is the failure on the part of a surgeon to obtain adequate written operative approval for himself and for his associates. Another is the so-called doctrine of uninformed consent which simply means that the physician does not tell the patient enough in explanation of the risk involved so that when a poor result follows the patient takes the position that had he or she been properly informed consent for the procedure in question would not have been given.

In addition to the reasons thusfar discussed, there is the improvident criticism by one doctor of his predecessor's procedure or technique. Two doctors may justly disagree as to the proper form of treatment to be used in any given case but a derogatory comment of one doctor oftentimes suggests to the patient that another doctor has been neglectful and the patient retains a lawyer on that basis alone.

Another factor which might tend to lead to a malpractice lawsuit is the diagnostic impression made in the hospital record by an overly enthusiastic or conscientious physician which might later prove to be a little far afield or a poor choice of words. An example of this is an entry made by a consulting physician in a case which the writer defended several years ago involving the use of Chloromycetin. The doctor, in the hospital chart, referred to Chloromycetin as a notorious cause of aplastic anemia with an almost certain fatal result.

How do you avoid being sued? Advice on this subject is akin to advice on the subject of how to live to be an old man. The

best approach to the problem is probably bromidic but, never the less, extraordinarily apropos: The best way to avoid a lawsuit is to conduct yourself in such a manner as not to deserve one. Public education to eliminate misconceptions and misunderstandings of the rights and obligations of the physician is becoming increasingly important. The public must be made to realize that in this day of miracle drugs the physician, notwithstanding great advances in medical science, cannot guarantee total or even partial cure in every case; and that a failure to recover is a normal hazard of illness which medical science simply cannot avoid. If your patient is aware of your sincere, whole-hearted and conscientious effort with unstinted application, you know that you are blameless and your patient is very likely to agree. A physician who has the unique quality of developing in his patients the impression of his being totally interested and totally concerned with his patient's personal problems; who, as he makes rounds, takes the time to discuss with his patients some of the small and even petty problems of his daily life; who makes it a point to know a little something about the patient's family; might have just as many complications and just as many "poor result" cases as any other similarly qualified physician, but it is unlikely that he will ever be called upon to defend himself in a medical malpractice lawsuit.

With the increase in medical malpractice litigation, there is likewise an increase in the number of doctors who prostitute their testimony and who spend most of their time traveling all over the country to testify against defendant doctors in medical malpractice lawsuits. These men do not practice medicine as you practice your profession. This prostitution of testimony does not help the public image of the physician. Indeed, even the lawyer who has bought such a doctor and his testimony feels somewhat contemptuous of him. Certainly, he does not accord him the esteem to which a reputable physician ordinarily would be entitled. Defense counsel who has been correctly advised by his own medical experts that this physician is a charlatan is going to subject the gentleman to a grueling cross-examination. Then, of course, the medical experts for the defense will directly contradict such outlandish testimony. However, the jury might in some instances accept the charlatan either because the jurors swallowed his suave courtroom delivery and disbelieved the medically correct defense experts or because they permit sympathy for the injured plaintiff to prevail over their good common sense. In either event, the jurors know that someone is an outright liar. Because of the availability of these so-called experts, however, it is becoming increasingly more important for physicians and surgeons to keep better records, to document what has been said and done, to order tests and analyses and x-rays in cases in which these would not have been ordered in years gone by. No longer should you be interested in saving your patient a few dollars because in so doing you might find yourself a defendant in a lawsuit being critized by one of these traveling charlatans for not having ordered this laboratory test or a series of x-rays.

As a defense trial lawyer who has had the privilege of defending many of the physicians and surgeons who have been sued for medical malpractice in recent years, I know for a legal and medical certainty that there is nothing anyone can do to absolutely prevent medical malpractice lawsuits. However, you should pay heed to the tremendous amount of good instructive literature and information being offered to you by your medical publications, associations, committees and the like and you should make every effort to do something about the massive indifference that seems to permeate the attitude of the individual practitioner.

Spectacular verdicts against reputable physicians draw considerable attention. However, this and all of the other many reasons for the increase in medical malpractice litigation do not alter the happy fact that, for the most part, medical malpractice lawsuits still can be successfully defended. Except

(Continued on Page 32)

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(Continued from Page 30)

for those relatively rare cases of outright neglect, the bugaboo of being sued for medical malpractice does not mean that the physician and surgeon must throw themselves at the mercy of the plaintiff and beg for settlement. Fortunately, sound rules of evidence are still being enforced in every state and these usually require that the medical malpractice plaintiff must establish that his injury was caused by the failure of the physician or surgeon to exercise that degree of care and medical skill customarily exercised by other physicians or surgeons under the same or similar circumstances and these standards must be established by expert testimony from competent physicians or surgeons.

The basic requirements of every trial insist that the plaintiff must establish his case to the reasonable satisfaction of the jury. The fact that a physician or surgeon chooses one of two courses and that hindsight demonstrates that his judgment would better have been directed to the course he did *not* take does not establish fault on his part. The physician is not a guarantor of desired results. The fact that an unfavorable or unusual result was obtained is not evidence of negligence. If there are two schools of thought on a given procedure or technique, the physician is not responsible if he chooses the minority view, which later proves to be wrong, as long as this minority view is shared by other reputable physicians. The physician is presumed to have acted with due care and skill and unless the plaintiff is able to establish by expert evidence that the defendant doctor failed to measure up to the standards of care previously discussed and that this failure was the direct and proximate cause of the damage, the plaintiff has failed to make out his case.

In conclusion, it is hoped that we can evolve the modern miracle in dealing with medical malpractice litigation by restoring the physician to his former pinnacle in the public eye and by educating doctors and lawyers on how to handle their patients themselves and upon handling each other. Let us also hope that the courts will not force social legislation on us by decisional law based upon social concepts rather than upon legal concepts; that the courts will more often recognize that most surgical and medical techniques and procedures contain an element of risk and uncertainty; that the physician is constantly forced to elect, not between a safe and an unsafe method of procedure, but between several procedures not one of which is guaranteed to be safe, and it is a matter of medical judgment as to which is best to use in a given case; and, finally, that a bad or an unusual or an unfortunate result is not evidence of negligence nor does it nor should it create an inference of negligence.

As stated by an appellate court judge in England several years ago:

> We should be doing a disservice to the community if we imposed liability on hospitals and doctors for everything that happens to go wrong. Doctors would be led to think more of their own safety than of the good of their patients. Initiative would be stifled and confidence shaken. A proper sense of proportion requires us to have regard to the conditions in which hospitals and doctors work. We must insist on due care for the patient, but we must not condemn as negligence that which is only misadventure.

Finally, as one of my colleagues said several years ago in discussing the subject:

> Trial and error is an accepted mode of scientific research that is sometimes forced on a physician. We should not discourage medical progress by placing the stigma of liability upon a bad result where the doctor is probing for more knowledge in a field of inexact science which, everyone admits, is constantly in search of better and more effective procedures, methods of operation, and application of new drugs in the practice of the human art that may one day find any one of us as the patient.

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Opinion & Dialogue

Is there a need for a drug compendium?

Government Health Official

Henry E. Simmons, M.D.
Deputy Assistant Secretary for Health
Department of Health, Education and Welfare



A drug compendium of the type I envision would fill a definite need for the practicing physician. Such a compendium would give him all the information necessary for using a drug intelligently, and it would do so in a clear, concise, convenient, objective and balanced fashion.

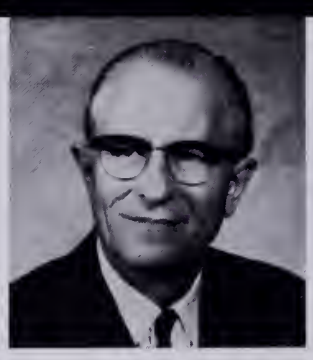
What a Compendium Should Contain

I believe the compendium should inform the doctor what a drug will do, when he should use it for what type of patient, for how long, in what dose, what benefits his patient is likely to obtain, the risks involved, and cross-reactions with other drugs.

The information would be based on the package insert and have the same legal status. In fact a complete compendium with complete and current information might even eliminate the necessity

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Joseph F. Sadusk, Jr., M.D.
Warner-Lambert Company



A drug compendium, or preferably compendia, should, I believe, be private, not federal, in sponsorship. They should contain comprehensive listings of drugs available for prescribing. They should be single, legibly printed volumes of reasonable size, updated quarterly or semiannually and completely revised every year

Function of a Compendium

A compendium should furnish the following information on drugs in the following order: indications for use, side effects, adverse drug reactions, contraindications, drug interactions, drug dosage and the dosage forms marketed. Drug prices should not be included because they vary so widely and change rapidly.

No compendium should set forth drugs of choice or discuss relative efficacy. Such questions must be left for the practicing physician to decide, whether on the basis of the medical literature, his own clinical experience, advice of colleagues, information supplied by manufacturers, and so on.

Nor should a compendium undertake to educate the doctor on how to use drugs. Rather, it must be a reference source designed primarily to refresh his memory as to drugs he may not use regularly. It

a package insert in many in-
nces. This would constitute a
ostantial saving for the manu-
turer.

By a complete compendium,
not mean a volume of prohibi-
e size. You don't need a book
scribing 25,000 products with
enormous amount of repetition.
:her, drugs should be arranged
class. Mutually applicable infor-
tion would be provided, along
h brief discussions pinpointing
'erences in specific drugs of
t class. Listings would be cross-
exed in a useful way.

ıer Available Documents as
ırces of Information

Existing references such as
R and the AMA Drug Evaluation
obviously useful but they are
omplete. Either they are not
ss-referenced by generic name
I do not group drugs with simi-
characteristics, or they do not
all the available and legally
rketed drugs. And some of
se omitted may be very useful.

On the other hand, drugs made by more than one supplier, tetracycline for example, may be fully described a dozen times in the same book.

While perhaps PDR could be rearranged and cross-indexed with generics included, and while the AMA Drug Evaluation might also be modified and expanded, I am not sure that the end result would have all the attributes required for a useful compendium. At the same time, you would run the risk of amassing a voluminous and unwieldy tome.

Should Editorial Comments Accompany the Listings?

Subjective judgments, in my opinion, have no place in a compendium. However, if there is substantial evidence based on a sound body of science concerning relative efficacy of several drugs, certainly that information should be included. The committee of experts compiling and editing a particular section would also have to assess and indicate instances where a meaningful difference between drugs is pertinent.

Sponsorship, Compilation and Editing

Producing a book like this would undoubtedly be difficult and demanding. It would obviously take a great deal of talent and expertise, and would require a varied and experienced group, ranging from writers and editors to highly skilled clinicians and pharmacologists. Style, format and clarity of language would play an important part in determining the usefulness of the book. And it should be updated periodically and completely revised annually.

I have no opinion whether the government or the private sector should sponsor and/or finance the compendium. What is most important is that the compendium be an authoritative, objective and useful source of information for the doctor to have at hand as a ready reference.

---

uld in no way imply control over
practitioner's prerogatives.

y Another Compendium?

A practicable, single-volume
npendium cannot, nor is it
:essary to, include all drugs on
market today. From my prac-
e of internal medicine for some
years, my experience as a con-
tant, and as a faculty member
our or five medical schools, I
uld estimate that a doctor uses
y 30 to 35 drugs regularly. The
72 Physicians' Desk Reference,
identally, contained about
00 entries.

As to whether there should be
ederal compendium, in my opin-
, as stated earlier, the answer is
y—there should *not* be one. The
posal assumes that existing
npendia are inadequate. We're
sure of that at all. Whatever its
erfections, the present drug
ormation system in the U.S. is
n, multifaceted, pluralistic and
ensive. Good compendia exist,
well as other ample sources on
g therapy, ranging from journal
rature through AMA Drug Evalu-
n to company materials. Not
physicians may use such
rces as often or as well as they
uld, but that is the fault of the
n, not of the sources.

In any event, rather than produce another book, it makes much more sense to work on improving existing compendia, and perhaps they could, as knowledge advances, include more accumulated clinical data and experience, and more information on drug interactions and adverse reactions.

Implications of a Federal Compendium

Take a hard look at the implications of a federal compendium. It would have the force of law, virtually dictating what drugs to use and how to use them. In effect, it would be a regulatory document with legal or quasi-legal status, posing medical/legal problems similar to those the doctor may now encounter if and when he departs from the provisions of the package insert. A compendium under federal aegis would tend to restrict decisions on drug therapy to one orthodox level—a most dangerous trend for medicine.

New Compendium—A Medical Option

I detect no ground swell of initiative or support whatsoever for a federal compendium—or, for that matter, for a new compendium of any type. A 1969 PMA survey conducted by Opinion Research Corporation found that only 15 per cent of those physicians interviewed felt a new compendium was needed. And a large majority did not favor the involvement of the federal government if one were to be created, preferring instead a nongovernmental consortium.

Even if we come to a time when the medical profession itself opts for a new kind of compendium, it should be handled and financed, ideally, outside both government and industry. Final review and editorial authority could be delegated, say, to specialty bodies and medical societies—but above all, *not* the government.

Surely the health care system in the United States has far more vital matters to consider than the extensive cost and effort that would have to go into the preparation and maintenance of a new, monolithic compendium, and especially one bearing the imprimatur of the federal government.

Opinion & Dialogue

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Age 31; Medical College of Georgia, 1968; Board eligible; seeking associate practice in North Alabama or coastal area. Available July 1975. LW-4/4

Age 33; Medical College of South Carolina, 1966; Board certified; seeking group or associate. Available September 1975. LW-4/5

Age 32; Emory University, 1968; seeking solo, associate or group practice. Available July 1975. LW-4/6

Age 45; Washington University, St. Louis, 1954; Board certified; seeking solo, associate or group practice (interest in gastroenterology). Available August 1975. LW-4/7

Age 31; Albany Medical College 1969; Board certified; National Board; seeking associate, group or institutional practice. Available August-September 1974. LW-4/9

Neurology—

Age 36; Columbia 1964; Board certified; National Board; seeking group, institutional or university clinic. Available September 1974. LW-5

Orthopedics—

Age 33; Hahnemann, 1968; National Board; Board eligible; seeking associate practice. Available July 1975. LW-5/2

Ophthalmology—

Age 38; Baylor 1962; Board certified; seeking solo, associate, group, industrial, or institutional practice. Available September 1974-Jan. 1975. LW-10

Pathology—

Age 37; University Santo Tomas, Phillipines 1961; Board certified; seeking associate or group practice. LW-6

Age 43; University Santo Tomas, Phillipines 1954; Board certified; seeking associate or group practice. Available September 1974. LW-6/1

Age 41; Ohio State University, 1959; Board certified; seeking institutional practice, clinical and/or anatomical. Available summer 1974. LW-6/2

Pediatrics—

Age 33; Seoul National University, Korea, 1965; Board eligible; seeking hospital based practice or group practice. LW-7/2

Age 31; Chicago Medical School, 1969; National Board; Board eligible; seeking associate or group practice. Available July-August 1974. LW-7/3

Radiology—

Age 58; Georgetown 1939; Board certified; seeking industrial or institutional practice. LW-11

Surgery—

Age 34; Bowman Gray 1966; Board certified; seeking associate or group. Available August 1975. LW-8/3

Age 31; American University, Beirut Lebanon 1966; National Board; seeking associate or group practice. Available October 1974. LW-8/4

Age 41; Vanderbilt 1963; Board certified; National Board; seeking solo, associate or emergency room practice (surgery with some general practice). LW-8/5

Urology—

Age 33; Tulane, 1966; Board eligible; seeking associate or group practice. Available August 1974. LW-9/1

Age 32; Georgetown University, 1968; National Board; Board eligible; seeking associate, group or industrial. Available Fall 1975. LW-9/2

Physicians Wanted

General Practitioners—

Physician wanted for general practice in town of 7,000 population with trade area of 15,000 population located in central Alabama. 35-bed hospital located in town. Office space available near hospital. Nearest large city with population of 50,000 is 30 miles away. Numerous churches and schools. Lumber and textile industry. Recreational activities and civic clubs. PW-8/2

Physician wanted for general practice, group or associate, in University town of 40,000 population. Salary and partnership negotiable. PW-1

General Practitioner wanted for multi-specialty group practice on Bay in South Alabama. Modern offices, near hospital. Salary with incentive available. Excellent churches, schools and recreational facilities. PW-2

Associate wanted in a three physician general practice in a rural county near Mobile. Salary initially with anticipated early partnership arrangement. 30-bed county hospital adjoining the office. PW-3

Opportunity for General Practitioner in South Alabama community with a trade area of 20.000 to 25,000 population. Modern hospital with certified surgeon, radiologist, and cardiologist on staff. Present physicians interested in partner, forming Professional Association or may enter into private practice. Free office space available, or physicians in the area interested in building new office building. Excellent school system with junior college within 15 miles. PW-4

Family physician needed as associate with well established physician in small North Alabama town. Modern, fully equipped hospital. Office space and equipment available. Salary negotiable plus other benefits. PW-5

Opportunity for young internist or family physician to join three man group in rapidly growing town of 12,000 population in Tennessee Valley. Excellent hospital. Modern well-equipped office. PW-6

Opportunity in southeast Alabama in town of 3,000 population, trade area of 15,000 population. Nearest large city, 8 miles, 40,000 population, and 2 large hospitals. Office space and housing readily available. Industrial and agricultural area. Churches, schools, civic and social activities. PW-7

Opportunity in south Alabama in town of 2,700 population, trade area of 15,000 population. Nearest large city of 30,000 population located 45 miles. Nearest hospital is 10 miles. One physician now engaged in practice in the town. Necessary arrangements will be made for office space, equipment, and housing. Industrial and agricultural area. Churches, schools, civic and social activities. PW-8

General Practitioner urgently needed for busy, active practice in rural densely populated area in Northeast Alabama. Modern fully equipped clinic with X-ray, lab facilities, four examining rooms, minor surgery, emergency room, physician's office, large twenty-patient waiting room, spacious business and records section, nurses and physicians lounge. Office personnel available. Accredited general hospital nearby. PW-8/1

Special Openings—

Wanted—2 Internists, 2 Ob-Gyn, 2 Pediatricians, 1 Urologist, 1 Anesthesiologist. Fee for service basis, Gross guarantee 1st and 2nd year. New office space to be available next to hospital. 100-bed hospital, modern well equipped, fulltime radiologist and pathologist. Two general surgeons and 9 general practitioners now serving population base 40,000. Unemployment in area less than one percent. Excellent recreation area. Invitations to visit with expenses paid will be directed to those qualified. PW-12

Opportunity for *Family Practice* and *Internists* in central Alabama town in population group 10,000-25,000. PW-13

Student Health Physician. (particularly interested in female physician) Opportunity available for clinical medicine in a University of 15,000 students. Four weeks annual leave, sick leave, retirement, salary negotiable. PW-14

Wanted, internists, generalists, radiologist, orthopedist, general surgeons. Town of 15,000 population in county of 45,000 population located in Southeast Alabama. Attractive for a group setup. High income area and marked scarcity of physicians. Excellent schools and recreational facilities. Newly expanded hospital. PW-9

General Surgeon and Ophthalmologist wanted for community of 22,000 population and 45,000 service area. New hospital with eight general practitioners and one Board certified radiologist. Schools for blind and deaf located in the town. Excellent schools and recreational facilities. PW-11



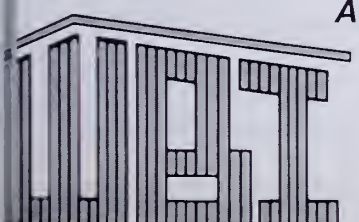
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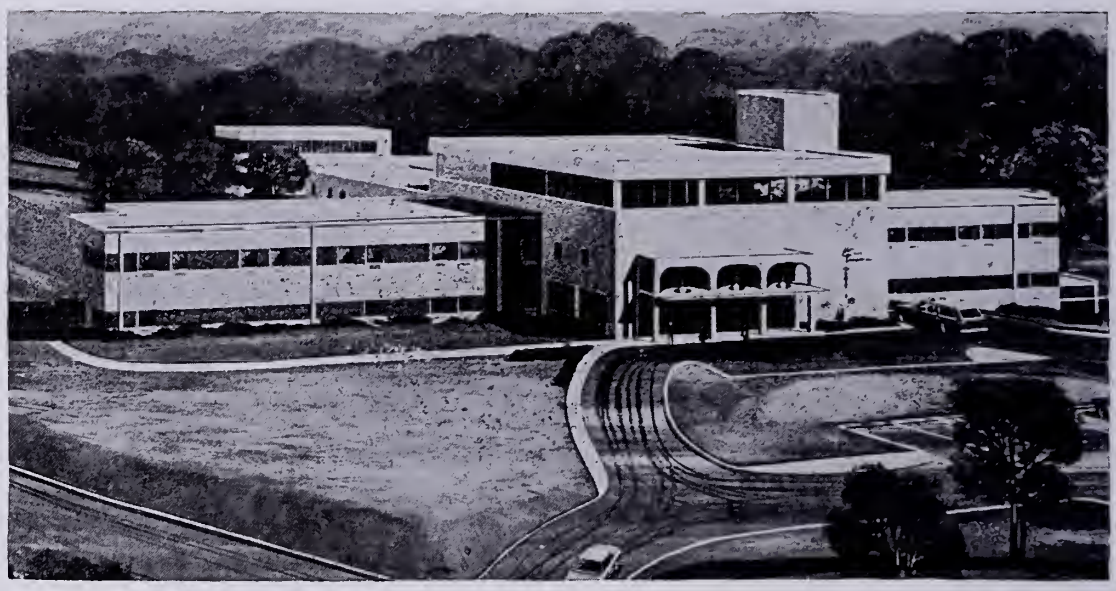
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CONTINUING MEDICAL EDUCATION

Larry Dixon

The AMA has recently compiled the latest information regarding the national CME status. The "Fact Sheet" leaves little doubt even in the mind of the most skeptical, that continuing medical education is becoming increasingly important to the physician and his organizations.

MASA has recently completed the requirements necessary for it to qualify to appear under item #7. The 1974 Annual Session saw passage of a constitutional amendment that will place MASA in item #1, upon the completion of the Medical Education Committee's charge to utilize this year to ". . . circulate the specifics to the membership."

The following is printed with the approval of the AMA.

FACT SHEET

1. State medical associations which have made a policy decision that will have the effect of requiring continuing medical education as a condition for membership:

   (a) Arizona
   (b) Florida
   (c) Kansas
   (d) Massachusetts
   (e) Minnesota
   (f) New Jersey
   (g) North Carolina
   (h) Oregon
   (i) Pennsylvania

2. Medical specialty societies which have a continuing medical education requirement for membership:

   American Academy of Family Physicians

3. Medical specialty boards which require recertification:

   American Board of Family Practice

4. The Physician's Recognition Award provides a means for documenting continuing medical education for all physicians in any field of medicine. Programs for certifying continuing medical education are in operation in the states of Oregon, Arizona, Pennsylvania and California. Criteria for certification adopted by the Pennsylvania Medical Society are identical to those of the Award. The American Medical Association assists the state associations of Pennsylvania and Arizona in the review and evaluation of the applications from their membership for their certificate in continuing medical education. The Award Program endorses the continuing medical certification programs for the following organizations:

   1. American Academy of Family Physicians
   2. Arizona Medical Association
   3. California Medical Association
   4. Oregon Medical Association
   5. Pennsylvania Medical Society

This means that any physician qualifying for these programs is also considered qualified for the Award. In the states of Pennsylvania and Arizona, the Award certificate is issued, as well as the state certificate for continuing medical education. For the other organizations, a simple statement by the physician on his application for the Award and the application fee is all that is needed. He need not complete the details of the application form.

5. *Criteria for the Award—Credit Hour Limit*

Category 1—C. M. E. Activities with Accredited Sponsorship (60 hours required) No limit

Category 2—C. M. E. Activities with Non-accredited Sponsorship 45 hours

Category 3—Medical Teaching 45 hours

Category 4—Papers, publications, books and exhibits 40 hours

Category 5—Non-supervised individual C. M. E. Activities 45 hours

Category 6—Other Meritorious Learning Experiences 45 hours

6. Medical practice acts in four states give the state Board of Medical Examiners authority to require evidence of continuing medical education as a condition for re-registration of the license to practice medicine. They are:

1. Kansas
2. Kentucky
3. Maryland
4. New Mexico

The Boards of Medical Examiners of Maryland and New Mexico have established criteria and are implementing this requirement. The Physician's Recognition Award fulfills the requirements of both the Maryland and New Mexico Board of Medical Examiners' requirements.

7. State medical associations which have been approved by the Council on Medical Education of the American Medical Association for accreditation of organizations or institutions sponsoring intra-state continuing medical education programs are:

1. California Medical Association
2. Pennsylvania Medical Society
3. Tennessee Medical Association
4. Medical and Chirurgical Faculty of Maryland
5. New Mexico Medical Society
6. West Virginia State Medical Association
7. Medical Society of New Jersey
8. Arizona Medical Association
9. Connecticut State Medical Society
10. Illinois State Medical Society
11. Indiana State Medical Association
12. Medical Association of Georgia
13. Medical Society of District of Columbia
14. South Carolina Medical Association
15. Maine Medical Association
16. Kansas Medical Society
17. Mississippi State Medical Society
18. **Medical Association of the State of Alabama**
19. Louisiana State Medical Society
20. Massachusetts Medical Society
21. Rhode Island Medical Society
22. Utah State Medical Association
23. State Medical Society of Wisconsin

LIST OF STATE LICENSING BOARDS currently requiring continuing medical education for osteopathic relicensure, and the respective amounts.*

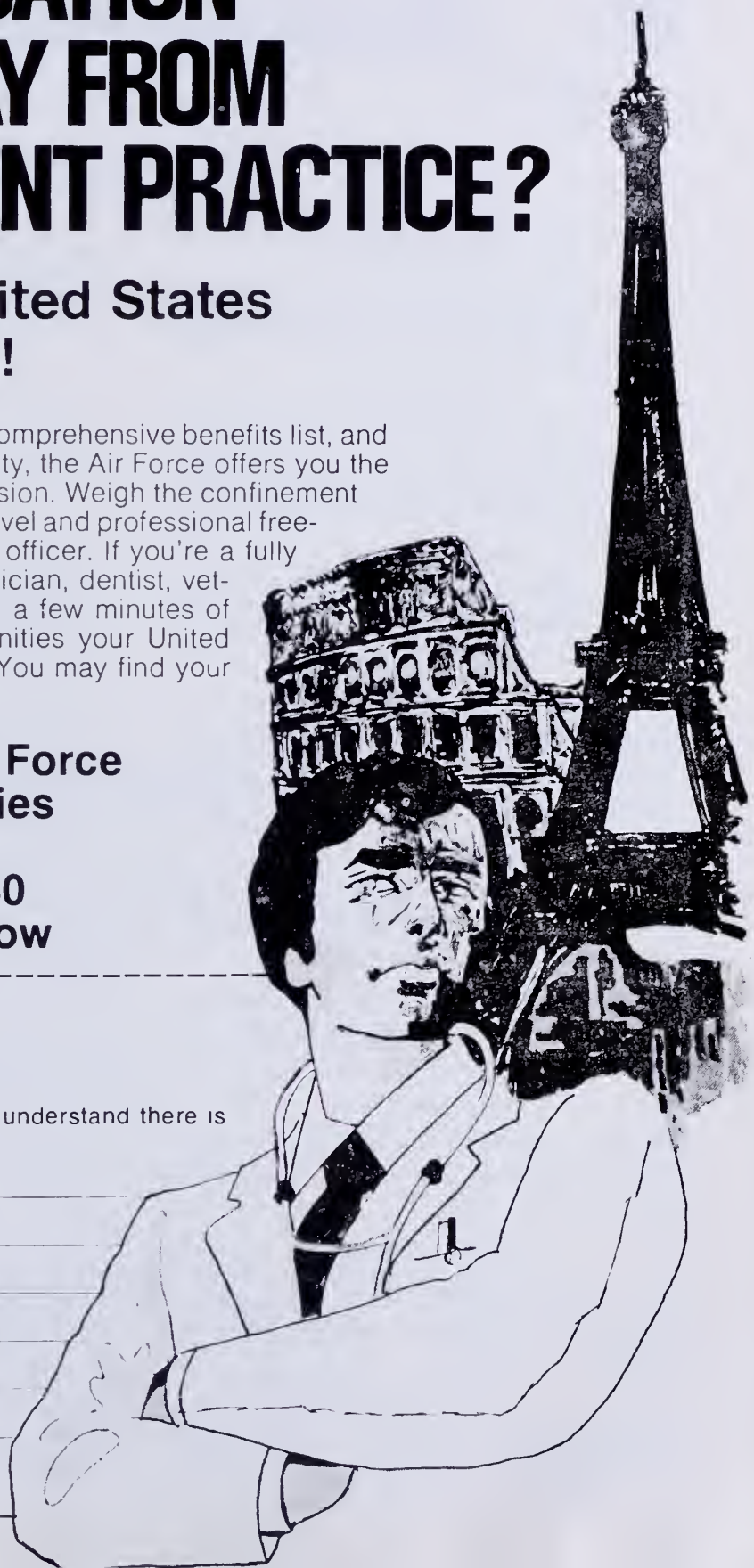
Arizona	2 days
Florida	25 hours
Maine	2 days of 5 hours each
Maryland	No numerical value set
Michigan	1 day of 8 hours
Nevada	2 days of 5 hours each
New Mexico	3 days
Ohio	2 days
Oklahoma	2 days
Tennessee	2 days
Vermont	2 days
West Virginia	2 days

*According to the latest information available at the time of publication.

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Edwards, Winston Tacker, b 41, mc Ala. 70, recip. NBME 71, Rt. 5, Box 361, Wetumpka, Alabama 36092. I.

Escambia County

Vanlandingham, John Alwin, b 38, mc Michigan 70, recip. Michigan 73, Medical Center Hospital, Brewton, Alabama 36426. GP.

Houston County

Pruitt, Elihu Posey, III, b 36, mc Ala. 62, sb 63, 1150 Ross Clark Circle, S. E., Dothan, Alabama 36301. P.

Lee County

Roberts, Edward Vann, b 39, mc Tenn. 69, recip. NBME 70, 1711 Pepperell, Opelika, Alabama 36801. GP.

Mobile County

Siegal, Alan Myron, b 38, mc Ala. 64, sb 65, Dept. of Medicine, 2451 Fillingim St., Mobile, Alabama 36617. I.

Warren, Claude Morris, III, b 40, mc Ala. 69, sb 70, 1720 Springhill Ave., Suite 101, Mobile, Alabama 36604. Oph.

Tuscaloosa County

Walburn, James Hodo, b 40, mc Ala. 66, sb 67, 921 3rd Ave., East, Suite 104, Tuscaloosa, Alabama ALR.

MEMBERS DECEASED

Barbour County

Eppes, Kendall, Eufaula, Alabama, Deceased 5/7/74

Lawrence County

Alexander, William Wallace, Moulton, Alabama, Deceased 5/24/74

Mobile County

Stephens, Selden Harbour, Sr., Mobile, Alabama, Deceased 3/8/74

MEMBERS REMOVED

Lauderdale County

Simpson, Wyatt C., Florence, Alabama, Removed.

Jefferson County

Adams, John G., Jr., Memphis, Tenn., Moved from State

Arrowsmith, David R., Fort Walton Beach, Fla., Moved from State

Carter, James R., Memphis, Tenn., Moved from State

Chu, Young-Kwon, Richmond, Va., Moved from State

Collins, Margaret C., Cranbury, N. J., Moved from State

Freeman, William J., Sumter, S. C., Moved from State

Gantt, Charles B., Jr., Birmingham, Transfer to Nonmember

Graves, David B., Boynton Beach, Fla., Moved from State

Haskell, William M. M., Birmingham, Alabama, Transfer to Nonmember

Hayes, William G., Charleston, W. V., Moved from State

Hyman, Miles D., Foxhill, California, Moved from State

Jared, Olcie A., III, Boynton Beach, Fla., Moved from State

Kneidel, John H., Fairfield, Alabama, Transfer to Nonmember

Meador, Clifton K., Nashville, Tenn., Moved from State

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Reeves, Thomas J., Birmingham, Alabama, Transfer to Nonmember

Rudder, William H., Montgomery, Alabama, Transfer to Nonmember

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Covington County

Cumbie, William G., present Andalusia to P. O. Box 130, Andalusia, Alabama 36420.

Vickery, Robert E., Atlanta, to Rt. 1, Box 589-A, Haines City, Fla. 33844.

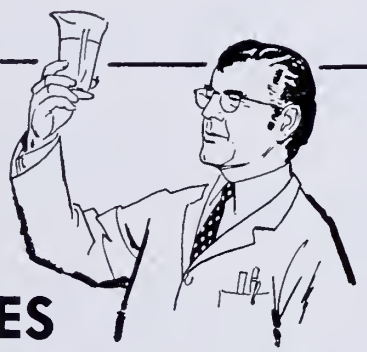
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Carter, William W., Madison 534-2551

Cleveland, Richard D., Houston 794-7839

Edwards, Winston T., Elmore 567-6361

Hotalen, William B., DeKalb .....

Pruitt, Elihu P., III, Houston 794-0719

Roberts, Edward V., Lee 749-8349

Siegal, Alan M., Mobile 476-3750

Vanlandingham, John A., Escambia 867-6081

Walburn, James H., Tuscaloosa 758-9041

Warren, Claude M., III, Mobile 433-2564

MEMBERS REINSTATED

DeKalb County

Hotalen, William Burke, b 21, mc Tenn. 47, recip. Tenn. 50, Suite 660, 3384 Peachtree Rd., N. E., Atlanta, Ga. 30326.

Madison County

Carter, William Wood, b 21, mc St. Louis 45, recip. Missouri 61, 812 Gallatin St., Huntsville, Alabama 35801.

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Jefferson County

Ritchey, Hardin M., 7901 1st Ave., South *Suite 206*, Birmingham, Alabama 35206.

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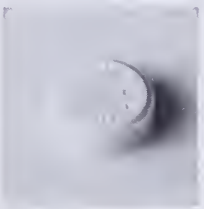
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For further information on this subject, the following references are provided:

1. Henry BW, *et al: Dis Nerv Syst 30*:675-679, Oct 1969.
2. Hollister LE, *et al: Arch Gen Psychiatry 24*:273-278, Mar 1971.
3. Claghorn J: *Psychosomatics 11*:438-441, Sept-Oct 1970.



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THE JOURNAL

of the

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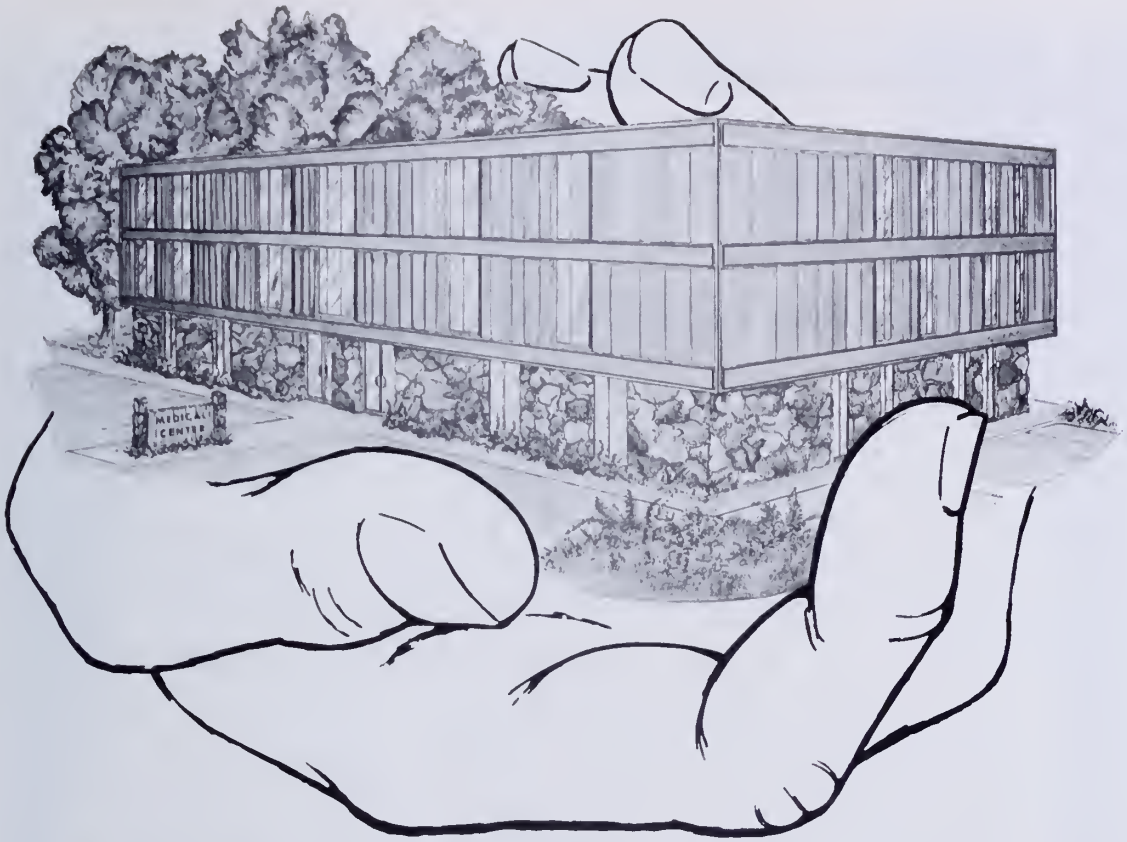
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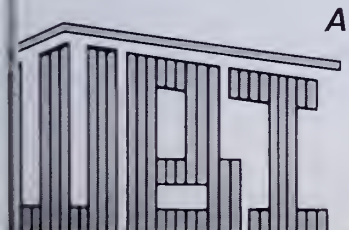
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THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA · 1873 ·

PRESIDENT'S PAGE

J. GARBER GALBRAITH, M.D., PRESIDENT



Need For Physicians in MH-MR Facilities

The Alabama Department of Mental Health has been under Federal Court injunction and has been ordered to provide more adequate treatment of individuals involuntarily committed to its care. One of the greatest needs of the department at this time is additional professional staff, both psychiatric and general medical, in order to provide the standards of medical care desired. Dr. Clark Case, Deputy Commissioner - Department of Mental Health, was invited to supply a guest editorial for this issue. His comments follow.

The Alabama State Hospitals that for over a century provided residential care for the mentally ill and mentally deficient became primarily custodial "warehouses", according to reports. To correct this, the Department of Mental Health was created by the Legislature nine years ago but only became funded and geared up about five years ago. It began programs at Bryce and Searcy Hospitals to discharge patients who required only custodial care. Progress was being made, funds were increased, and the hospital population had decreased when the Wyatt vs. Stickney litigation was begun. On April 13, 1972, the Federal Court ordered the Department to upgrade its facilities to provide minimal standards for treatment of the individuals involuntarily committed to its care.

Searcy Hospital reduced its population an average of 17 per cent a year, from an initial population of 2500 to 800, a total reduction of 65 per cent. Bryce Hospital has reduced its population an average of 14 per cent a year from an initial population of 5200 to 2400 at present, a total reduction of 54 per cent.

At least two of the standards ordered by the court are not being met: The obsolete buildings cannot be upgraded to modern standards; and more important, the recruiting and retention of staff physicians. This is despite the raising of salary levels to better than a competitive level, and an active national recruiting campaign. Searcy has been more successful in retaining physicians and has 7 licensed and 3 unlicensed physicians. The staff is supplemented by 5 psychiatric consultants to make the equivalent of 2 full time psychiatrists. (According to the court standards, Searcy should have 6 additional physicians.) Bryce has 7 licensed and 15 unlicensed physicians. Since the court order insists that physicians be licensed in Alabama, according to those standards Searcy should have 6 additional physicians and Bryce should have 47 additional physicians.

An important factor at Bryce is that the clinical treatment programs and teams are headed by non-physicians (chaplains, psychologists, or social workers). This and other departures from traditional practice has made the recruiting and retention of physicians difficult.

The reduction in hospital population at Searcy Hospital has occurred although the annual rate of first admissions has *increased* about 30 per cent (353 to 458) over these 5 years, while at Bryce the first admission rate has *reduced* about 60 per cent (2064 to 862).

(Continued on Page 74)

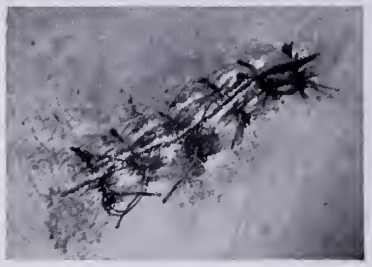
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WOMAN'S AUXILIARY

EVELYN O'BRIEN, PRESIDENT



A Report on The Woman's Auxiliary Meeting in Chicago

I am writing this page just after returning from the annual convention of the Woman's Auxiliary to the AMA. The convention took place at the Drake Hotel in Chicago at the same time the AMA had its' convention at the Palmer House, June 23rd to 26th.

We were well represented there with ten ladies from Alabama serving in various capacities; two national past presidents, two present national officers and six delegates. I found the events of the convention very stimulating.

The AMA presented a panel and the Auxiliary presented a speaker at different times, and they both came to the same conclusion—that if we are to survive the family must survive.

The panel was sponsored by the AMA's Dept. of Medicine and Religion. Participants included a clergyman and chaplain, a Family Court Judge and a Professor of Psychiatry. They all concluded that marriage and family life are experiencing rocky times. Yet, marriages offer the only real security for young people and provide the only real hope for the future of society.

From their experience they stated that the institution of marriage and the family are diminishing in their solidarity and valuation and we seem to be doing very little if anything to save the family.

The basic cause for most divorce is the existence of a self-centered, selfish attitude on the part of the people involved and children are the principal victims of divorce.

The members of the panel also felt that a dead marriage should not be buried as long as there is a breath of life in it and the way we conceive of the relationship of the family and the community needs to grow.

Dr. Joyce Brothers spoke to a morning session of the Auxiliary and concluded that the family is the basic unit of both primitive and advanced societies and can survive because it can adapt to changing conditions.

She further stated that families were formerly large and self-contained, and are now smaller.

The communal family has limitations and many cannot adapt to it. The "cluster" community may hold some promise since it allows families to keep their identity and share interdependence. An academic community is an example of this type.

Dr. Brothers also pointed out that if a child's physical needs are met and he has the love of the mother, the child will be likely to be a secure child.

She concluded by suggesting that the husband-wife relationship within the family have an annual check-up either with or without professional help. She suggested that a husband and wife each list five examples of loving behavior and five examples of selfishness, and then discuss how these can be changed or improved. This might be helpful to auxiliary members in their own homes and to physicians in helping patients to have sounder and more secure marriages.

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Relief of Premenstrual Symptoms, Dysmenorrhea, and Contraceptive Tablet Intolerance

A Preliminary Report

By
Joseph B. Miller, M.D.
Mobile, Alabama 36609

A new method of providing rapid relief of progesterone-related symptoms is based on the administration of progesterone injections in a dosage far smaller than in conventional usage. A hundredth, a thousandth, or a ten thousandth of a milligram of progesterone may give far superior, more rapid, and more dependable relief than 100-200 mgm. The exact dose is usually dramatically effective within 20 minutes; a dose slightly stronger or weaker than this is often ineffective, and may even aggravate symptoms. The proper dose can be determined precisely for each patient by a simple intradermal test.

Two types of progesterone-related symptoms can be relieved: (1) untoward reactions or unwanted side effects of the administration of exogenous progesterone, e.g. progesterone injections, and oral preparations containing progesterone, such as contraceptive tablets; and (2) symptoms occurring at a time of declining endogenous progesterone blood levels, such as premenstrual symptoms, dysmenorrhea, abnormal menstrual flows, and premenstrual and menstrual exacerbations of allergic syndromes such as asthma, perennial allergic rhinitis, urticaria, headache, vertigo, etc.

Materials

The primary material used has been Progesterone Aqueous Suspension, 50 mgm/ml (obtained from Elkins-Sinn Incorporated, Cherry Hill, New Jersey 08034). The commercial material is used as the stock bottle or "concentrate." Nine or more vials of diluted progesterone are prepared by the 1:5 serial dilution method. To do this, 4 ml of diluent (sterile saline containing 0.4 per cent phenol preservative) is added to each of the vials, and the vials are labelled Progesterone No. 1, Progesterone No. 2, etc. Then 1 ml of the progesterone concentrate is added to the No. 1 vial, obtaining thorough mixing by 5 to 6 push-pulls of the syringe plunger. With the hypodermic needle still in the No. 1 vial, 1 ml of this mixture is then withdrawn. This is added to the No. 2 vial, and the process is repeated until all vials are similarly mixed.

Technique of Testing

Testing is scheduled for a time when the patient is experiencing her premenstrual or menstrual symptoms, or on days that she is having symptoms from her contraceptive tablets, etc. The therapeutic dose is 0.05 ml of that dilution which clears these symptoms

completely within 20 minutes of administration as an intradermal test.

The usual starting dose is 0.05 ml of Dilution No. 1, administered intradermally. If this clears the symptoms within 20 minutes, as it often does, it is the treatment dose. If it does not, 0.05 ml of Dilution No. 2 is used next. If the symptoms remain unchanged or improve only partially, 0.05 ml of Dilution No. 3 is used, followed by consecutively weaker dilutions at 20 minute intervals as long as the symptoms become progressively better or at least do not worsen. In other words, if symptoms improve or remain unchanged while going consecutively weaker, one should continue going weaker until the symptoms either clear completely or become worse. Worsening while going weaker indicates moving consecutively stronger again.

The rule is: while moving in a given direction, if symptoms are improving with each dilution, continue in the same direction; if symptoms are worsening, change to the opposite direction. If worsening occurs after moving from Dilution No. 1 to Dilution No. 2, then 0.05 ml of the Concentrate is used next, and may produce relief. If this still does not give relief, Dilution No. 1 should be given again; it may give relief on the second try. If it does not, then Dilutions No. 2, No. 3, No. 4, No. 5, etc. are used until relief occurs.

Testing Hyper-reactive Patients

About 3 per cent of patients are too hyper-reactive to start with 0.05 ml/No. 1. If a patient is unusually sensitive in general, or has unusually severe symptoms with menses, particularly exacerbations of asthma, vertigo, or syncope, she should be started with 0.01 ml of Dilution No. 4, No. 8, No. 12 or weaker. Then any symptoms or changes that occur will probably be mild.

The idea is to start in a zone of little or no reaction, i. e. a dilution so weak that it stimulates mild or no symptom response. The "0.01 ml volume" is too small to read by the syringe markings, so is defined as that volume of fluid required to produce a 4 mm wheal. It is recognized that this volume is not always precisely 0.01 ml, but the term is used for convenience.

For example, if the first test injection is 0.01 ml/No. 4 and this makes the symptoms worse, or better but not clear, the next dose administered should be 0.01 ml/No. 5. If 0.01 ml/No. 5 produces no change or only partial clearing, it should be followed by consecutively weaker dilutions until symptoms clear. If 0.01 ml/No. 5 or any subsequent weaker dose produces worsening, this indicates moving consecutively in the opposite direction, i. e. stronger, until relief occurs. In either case, once clearing of symptoms occurs on the 0.01 ml dose, 0.05 ml of the same dilution should be administered as the definitive treatment dose.

On the other hand, if the first test injection (0.01 ml/No. 4) clears the symptoms completely, 0.05 ml of No. 4 is given to verify that this is the definitive treatment dose. If symptoms return on the 0.05 ml dose, then 0.05 ml of the next weaker dilution is given, followed by 0.05 ml of consecutively weaker dilutions until either clearing or worsening occurs. Clearing indicates the definitive treatment dose; worsening indicates moving consecutively stronger until relief is obtained.

It can be seen that the same principles of testing apply as in less reactive patients, particularly in regard to the direction signals. Giving doses in consecutive order is more informative of direction signals than skipping about. Whenever symptoms finally clear on the 0.01 ml dose, the 0.05 ml dose should be given for verification, for greater accuracy, and for more prolonged relief.

If a seemingly less reactive patient is started on the 0.05 ml/No. 1 dose, and symptoms are distressing and neutralization is difficult to achieve in the first few doses in the stronger range, it is sometimes well to re-categorize her as a hyper-reactive patient and start over again immediately in a weaker

range, e. g. 0.01 ml/No. 8, and proceed as described above for hyper-reactive patients. If the patient is unable to tolerate continued testing, relief can almost always be provided by administering a small subcutaneous dose of epinephrine. The preferred dosage form is Susphrine (R)*, five-hundredths ml (0.05 ml), as it usually takes effect in 3 minutes and may provide up to 24 hours relief.

Response

When the treatment dose is reached, there is complete or near-complete clearing of symptoms within 20 minutes. Symptoms tend to recur, and are best handled by administration of repeated treatment doses subcutaneously as needed. Usually the patient needs only one, two, or three treatment doses with each period, administered when symptoms recur. Some develop a lasting immunity within a few months, and then get along without any further injections. This often applies to patients on contraceptive tablets also, and some can continue taking their tablets without symptoms and without further progesterone injection therapy.

The symptoms which have responded to progesterone minidose therapy, in order of frequency of occurrence, are headache, tenseness, cramps, nausea, depression, vertigo, heavy flow, fatigue, backache, discharge, scant flow, breast soreness, ovulation pain, nasal congestion, asthma, and urticaria. It is interesting that heavy flows (flooding) are decreased toward normal, and scant painful flows are increased toward normal. It is also interesting that gross overusage of treatment doses usually manifests itself, if at all, by changes in flow, e. g. heavier flow, lighter flow, spotting, late period, skipped period, etc. This is prevented by simply using the treatment injections only when definite symptoms recur, and only if relief is obtained with each such injection, indicating correct dosage. If complete or near-complete relief does not occur, this signifies that the dosage need has changed, and the injections should be discontinued until retesting can be done.

At this writing, 53 cases have been studied. Favorable response occurred in 43 (80 per cent). Complete and dramatic relief occurred in 15 (28 per cent). Marked but not quite complete relief occurred in an additional 10 (19 per cent). Good relief occurred in an additional 18 (33 per cent), with only a moderate degree of residual symptoms. Those who obtained relief on testing also obtained relief by subcutaneous treatment when symptoms recurred.

Treatment Options

Treatment can be managed with greater convenience and virtually perfect control of discomfort by having the treatment injections administered at home. The patient or a member of the family can be instructed in the technique of subcutaneous hypodermic injection so that they can give the injections at any hour of the day that symptoms recur. Printed forms can be issued to reinforce verbal instructions. In order to facilitate home administration, prevent errors, and make it easier to withdraw the proper dose from the vial, the patients can be issued 1 ml single-dose vials each containing one treatment dose (0.05 ml of the treatment dilution) mixed with 0.5 ml of phenolated saline diluent. As the entire contents of one vial equals one dose, dosage errors are virtually impossible. Five such vials can be issued, along with 5 disposable tuberculin syringes and 5 disposable alcohol sponges in aluminum foil.

Physicians who prefer office administration can simply repeat the treatment dose daily in the office, as needed, managing any interim symptoms pharmacologically if necessary.

Instructions To The Patient

The patient should be instructed in advance that this is routinely a two-day test, that neutralizing doses can change at any time, that these changes can result in lessened effectiveness or even heightened symptoms when the obsolete treatment dose is administered, that retesting will restore effectiveness immediately, and that the long-

term benefit is worth the temporary discomfort involved in undergoing office testing while suffering from headache or menstrual cramps. By retesting the second day, one can inquire about the effectiveness of the first days treatment dose, and verify by retesting that the treatment dose is unchanged, or find the new treatment dose if a change has occurred.

Discussion

From the practical standpoint, progesterone minidose therapy is effective in a sufficient number of patients, 80 per cent, to make it a worth while clinical procedure. It is particularly appreciated by patients with severe prolonged progesterone-related symptomatology. Their relief is often great and at times dramatic, especially when considering their previous poor response to analgesics and other therapeutic modalities. Severe cases who could formerly obtain little relief with large doses of hormones and analgesics can often be given marked relief with progesterone minidoses alone or in conjunction with lesser doses of analgesics. There is no question but that other hormonal and nonhormonal factors are involved in the symptomatology of the menstrual cycle, so progesterone treatment alone cannot be expected to prove 100 per cent effective in all cases.

Conclusions and Summary

1. A treatment is described for obtaining marked and often dramatic relief of hormonally related symptoms within 20 minutes by administration of relatively tiny doses of progesterone.

2. A simple skin-test technique is described for finding the effective dose for each patient.

3. The method is effective in premenstrual and menstrual symptoms, premenstrual and menstrual exacerbation of allergic syndromes such as asthma, allergic rhinitis, urticaria, atopic dermatitis, headache, vertigo, etc., and intolerance or side effects from the administration of contraceptive tablets and other progesterone-containing preparations.

*Cooper Laboratories Inc., Mystic, Connecticut 06355.

"Stars Fell On Alabama"
The Jerome Cochran Lecture

Medical Association of the State of Alabama
Huntsville, Alabama
April 19, 1974

Tom E. Nesbitt, M. D.
Chicago, Illinois

The title chosen for my lecture will hardly prove fitting to the eventual subject material that I would like to discuss with you, but when asked to submit my title, my thoughts strayed to the current outstanding examples of leadership on the Alabama scene in and outside of medicine and, in turn, I viewed this as an opportunity to share some of my personal relations with your great state, which I also consider as stars in my lifetime. One must begin a listing of your current star studded team with your Governor, George Wallace. His progressively successful recovery from a horribly tragic event serves as a continual reminder of the immense fortitude which this man displays on the national level. Secondly, being an ardent sports fan, the next luminary I chose to salute is the champion of Alabama football, The Great Bear Bryant, and of course, of lesser importance, I must also salute your great 1973-74 basketball team at the University of Alabama, but being a strong Vanderbilt sup-

porter, hasten to remind you that you did share the championship of the Southeastern Conference this last year in basketball with the Black and Gold from Vanderbilt.

In the field of medicine, I must naturally give plaudits to my own Professor of Medicine at the University of Texas, Southwestern, who left Dallas to find his permanent home in Birmingham, Doctor Tinsley R. Harrison. I had the opportunity of reviewing Doctor Harrison's recent book entitled "Your Future Health Care" just prior to its publication and would commend it to each of you. Doctor Harrison is truly a giant among our world's fine physicians and certainly his textbook of internal medicine will be the medical student's Bible for many years to come. On the current scene at the national level in organized medicine, you are blessed with a truly great array of leaders. My good friend, Doctor John Chenault, currently Vice-Chairman of the Board of Trustees of the AMA, has been and remains an outstanding figure in the leadership role of our profession at this national level. John's future is unlimited and, of course, he is ably abetted by his wonderful, charming, energetic wife Belle, who serves on the Board of Directors of AMPAC. Our current vice-president of the American Medical Association, your beloved Bryce Robinson, is a great friend of everyone and highly respected by all who know him. His service on the Council on Medical Education and, more recently, to the Board of Trustees, has been outstanding. I only hope that he is rapidly recovering from his recent health problem. Your current AMA Delegates, Drs. White, Burleson and Emfinger, provide Alabama with an outstanding representation in the House of Delegates and their Alternates are always present to add additional luster to the Alabama scene.

From a very personal standpoint, I have been blessed for 25 years with a wife who was born and raised in nearby Sheffield, Alabama. Her lifetime Alabama connections include a great grandfather who served your Great State as Governor, Governor Robert Burns Lindsey (the only foreign born Governor of Alabama) and his brother-in-law, Governor William Winston. Her great aunt has been renowned throughout Northern Alabama for many years for her service to the cities of Florence, Sheffield, and Tuscumbia for her writings and educational activities on behalf of young children in these communities. Her name is Maud Lindsey, daughter of Governor Lindsey, a childhood friend of Helen Keller. I've heard Maud Lindsey's books read to my children for years—stories that had their roots in the red clay of Alabama. My wife, her brother and cousin were characters in some of Maud Lindsey's material and some were written for these children—her great niece and nephews. They reign as a constant source of enrichment and pleasure for not only my own children, but many many other young lives during their growing years. I do, indeed, belive that the Lord has looked with great favor on Alabama and provided her with many stars in her crown, and doubtless will continue to look favorably on her in the future, thus, I have outlined for you my reasoning for my subject title which was presented in all sincerity.

And now let me diverge from this title and bring you best wishes from the American Medical Association, its President, Doctor Russell Roth; its Board Chairman, Doctor Dick Palmer; its EVP, Doctor Bert Howard; its EVP-Designate, Doctor Jim Sammons and the members of the Board of Trustees. Just a little over two weeks ago, the news media and the "Health Care Industry" were startled by the news that Congressman Wilbur Mills had agreed to consort with Senator Edward M. Kennedy in the development of a compromise proposal on National Health Insurance. When this information was made public, the subject of my discussion with you today was immediately settled in my mind. I would like to view the subject material with some fairly broad brush marks to more clearly define some of the areas which need clarification and understanding; for each of us, as professionals, and more importantly, for our friends in the public sector, if this subject is to indeed become a pivotal issue

in the months ahead for our Nation's Politicians.

As I reflect on this subject of National Health Insurance which has been on and off the front burner in the eyes of the media for the last 25 years, I am invariably reminded of Murphy's Law which goes something like this—"If anything can possibly go wrong, it will", or, on the other hand, when I think of Government and its involvement in health care, I am in turn reminded of a newly described Jones' Law which goes something like this—"The man who can smile when things go wrong, has thought of someone he can blame it on". And one other applicable law which seems to have some relation to the topic is one devised by CBS News Commentator Eric Sevareid who says that the chief cause of problems is solutions. It always seems to me to be a great paradox that our profession, which is consistently shown to be ranked number one in the eyes of the public in all the polls when it comes to considerations of confidence and creditability, as contrasted to the Congress which invariably has a ranking of somewhere between 10th and 13th in the areas of confidence and credibility and the Communications Media having an even lesser ranking, yet are invariably in an adversary position with these two groups joining forces to create concerns and an atmosphere of crisis, in their zealous efforts to harness and subdue the physicians of this land who are, indeed, held in the highest esteem by the citizens of our Nation.

This is a year of Congressional elections that will be vitally important, not only of themselves, but as a bell weather for the presidential race two years hence. The stakes are likely to be played a little harder this time because of the strife in Washington and the dark clouds that hang over our Nation's economy and over her spirit. When incumbents confront the voters this summer and fall, our energy supplies may still be low, while unemployment, inflation and crime may well continue on the rise. The more helpless these incombents appear on those issues, the more temptation there is to siress health care as an issue. Our 300,000 physicians and 7,000 hospitals are more manageable after all than business cycles in the nebulous push-pull in the cost of living. According to Mr. Mills, Mr. Kennedy and others, there will be a strong temptation to enact National Health Insurance this year—we might add on the proud heels of PSRO, HMO and other health care measures. To the extent that an NHI law is political in its motivations, it may be more political than medical in its concepts, and to the extent that it seeks to show what our Federal Government (or a particular party or group) can do for the people, it may overplay the hand of government. Not many question that an improved method of health care financing is desirable for our Nation. So, first, I would like to explain the method that is legislatively proposed by the AMA. We oppose any kind of National Health Insurance that is so "National", so federal in its ambitions that it could muddle both "health" and "insurance". We oppose any kind of NHI that would erode the identity and initiative of any segment of health care and we oppose any kind that would deprive patients of their medical freedom. Potent as some of the bills are, any of these, if passed, could become more potent later through amendment and fiscal authority. A law can either die on the vine, once its purpose has been served, or it can grow like jimsonweed, with successive amendments for expanded purposes. Legislation in the field as momentous as National Health could easily resemble the jimsonweed. Any NHI Bill would likely be adopted as an amendment to the Social Security Act, the taxes for which have been raised repeatedly since its enactment. Much of the increase has been justifiable because of the need to do more for our elderly and our poor. However, we can reason that a Social Security Tax hike is politically less vulnerable than an income tax increase. Therefore, a government that wants a greater share of the national wealth and the power that goes with it, is tempted to use Social Security as a means to that end. NHI could become the major part of this mechanism.

It could become more truly the instrument of government than the people it was created to serve, but the opposite can be true and that is the AMA's goal. When physicians, officials and staff members of the AMA sat down to develop a program of National Health Insurance for this Nation of more than 200,000,000 people, their first step was to draw up some guidelines—a set of basic principles which must be preserved by whatever program ultimately becomes the law of the land. They are principles which have been tested through the years and which best serve the interests of patients, physicians, the government and the nation as a whole whose tax payers will have to bear the burden of whatever program is adopted. We think these guidelines are extremely important. First, the program should be voluntary. It should be made so attractive that everybody wants to join because he can see that it would be to his financial advantage to do so. If, however, someone wants to make other arrangements for his own protection, he should not be required to take part. Second, the financing of the program—the actual payments for medical services—should be handled through the existing insurance and pre-payment industry, which has years of experience in the area of offering health care protection. In addition, of course, the program should permit full operation of the newer systems such as pre-paid group practice, foundations and the like. The point is, is that the program should not eliminate what is now working smoothly—and establish new, inexperienced Federal or State Bureaus to do the job that is already being done privately. Third, the program should offer free choice—both to patients and to physicians and other professionals in medical and health care. Each patient should be able to go to any doctor he wants to see or be admitted to any hospital his doctor chooses. At the same time, physicians and others in the field should be free to select the kind of practice in which they will engage or the type of organization in which they wish to work. Finally, because I want to keep this list as short as possible, hitting only the high points which I referred to previously, government payment for the program for each individual should be related to that person's ability to pay for all or part of his own care. Tax payers shouldn't be asked to buy health care or anything else for people who can afford to protect themselves to some degree. Those who are unable to provide for themselves should have the major cost of the program paid for, but to keep the total cost within reason, every person should assume at least a small part of the responsibility of paying for his own care. It was in keeping with those principles that the AMA's proposal for National Health Insurance was designed.

With these basic principles of design as a background, and before a brief discussion of the major proposals, I would like to briefly review some of the basic concepts which give meaning to these proposals. Of high importance, we must question, initially, are all of the proposals designed to solve the same problems. Sometimes we get so involved in benefits, financing mechanisms and other specifics that we forget the basic problem that we set out to solve in the first place. The fundamental reason for these national health proposals is to reach a three part objective with which we are all familiar. This objective is, first, to increase access to health care to all persons; secondly, to hold down the cost of health services to the patient and to the nation; and third, to reach and maintain high standards of quality in the care provided. Now, it is difficult to assign priorities among the three. Cost gets the most attention, but cost is really part of the larger problem that has to do with an increasing demand and a limited supply. That situation, in turn, creates the problem of access to care. Now, at the same time, if either the cost or the access problem is solved, at the expense of quality, the solution may well turn out to be worse than the problem. Consequently, the three must be considered as one problem and any solution must consider all three. In other words, what kind of a job would each proposal do to solve the problems of cost, access and

quality? Among the factors to be considered, two seem to be basic. One is the extent to which we can learn from history, and second is the impact on each program on the consumer—the patient—the tax payer. He is, after all, the one whose health is the object of the whole movement and he is the one who will pay the bill for whatever program is finally enacted.

From a historical standpoint, National Health Insurance problems are really not new. Involvement with the subject dates back to 1798, when a hospital program for merchant seamen was enacted. Congress was further influenced by health insurance laws passed in Germany in the 1880's and in Great Britain in 1911. In this country, in the years from 1912 to 1920, a variety of proposed insurance plans appeared, but mostly at the state level. The real impetus for a national program was the 1932 report of the committee on the cost of medical care that advocated changes in the structure of medical practice and experimentation with voluntary health insurance. A minority report of that committee called for a compulsory plan under government control. Interest in the subject has never dwindled since that report, and the National Health Insurance Legislation has been introduced into every session of Congress since 1943. During this long debate on health care and health insurance, several basic philosophical dichotomies have persisted. When we look at the current proposals it is evident that these distinctions are still very much alive. For example, will a program provide universal or categorical coverage of the population. That is, will it be for everybody or for only a few specific groups. Will it provide comprehensive and continuing care, or episodic care. Will participation be compulsory or voluntary? Will responsibility for health care be public or private? and finally, will control be centralized at the national level or will local autonomy be preserved? For purposes of our discussion, therefore, I would like to review, briefly, the position of three major proposals related to these basic philosophies. In general, I have previously alluded to the basic principles adopted by the AMA in formulating its program of National Health Insurance. In recent weeks, the Nixon Administration has presented its new program entitled "The Comprehensive National Health Insurance Act of 1974". Subsequent to that, Congressman Mills announced that the House Committee on Ways and Means would begin public hearings on the subject of National Health Insurance beginning April 24, 1974. However, Congressman Mills states that the hearings would be confined to the recent Mills-Kennedy Bill, The Nixon Administration Chip Bill and The Ullman Bill. For purposes of our discussion, we will eliminate the Ullman Bill which was the proposal from the American Hospital Association. You will recall that this was the proposal that calls for health care corporations and, by comparison to other proposals, it has failed to find any degree of strength in support and it would appear that it will not be a viable contender in the current debate. Therefore, for our purposes, we will confine consideration to the AMA proposal, The Mills-Kennedy proposal and The Nixon Administration proposal, as related to the basic philosophical dichotomies which have been outlined as they apply to the solution of the principle three parts of the problem, namely, access, cost and quality.

Let me review with you, first, the AMA's proposal for National Health Insurance entitled "Medicredit". This program has 183 congressional co-sponsors, more than any other, who apparently agree with the principles which have been enumerated. This program will give to every person in America under the age of 65 equal access to high quality medical and health care, regardless of ability to pay. Without replacing the present Medicare program for the elderly, but replacing Medicaid for the poor and near poor, it makes available to everyone under 65 a private program of his own choosing to provide medical and health protection, covering both the ordinary and catastrophic expenses of illness or accident. Each person can buy a health insurance policy from a company—he can join a pre-payment plan,

such as Blue Cross-Blue Shield—sign up in a pre-paid group practice plan—enrole in a medical society foundation—or join a health maintenance organization. The choice is made by the family or individual and by no one else. As a consequence, all the private companies and plans will compete with one another to offer more benefits and attract more clients or members. All of the private programs offered under the AMA plan will be approved by each state to insure that all benefits meet minimum national standards. Each approved program would have two parts. One would be basic coverage to pay expenses for institutional care or an extended care facility, for out-patient and emergency care and for physician services irrespective of where they are given. The second part would be catastrophic coverage to pay expenses beyond those covered under basic care. The premium for catastrophic coverage would be paid for by the Federal Government out of general revenue taxes for everyone to make sure that a health crisis never again became a financial crisis for the poor or anyone else. The cost for basic coverage will be shared by the government and the beneficiary. How much the government would pay would depend on the amount of Federal Income Tax a person or family pays. If a family owes no income tax, the government pays the entire cost of the basic coverage. As the family's income tax liability goes up, the governments contribution goes down from 99 per cent to 10 per cent. It remains at 10 per cent for everyone who pays more than $890.00 in Federal Income Tax. That small amount of government contribution for people of higher income is designed as an incentive for them to get coverage from an AMA Medicredit approved program. In order to keep the total cost as low as possible to the tax payers, there are deductibles and co-insurance features built into the program in both basic and catastrophic coverage. Under the basic coverage, each patient would pay $50.00 per stay in the hospital and, in addition, for each year of coverage the patient pays 20 per cent of the first $500.00 for out-patient or emergency care and for physician services. Individuals who need help for catastrophic coverage would satisfy a deductible amount of expenses after the basic coverage runs out and this would be based on the taxable income. Therefore, people with little or no income would have no deductible since they would have no income. Others would pay the deductible according to the amount of money they make. We believe this has many advantages to recommend it to patients, to physicians and to tax payers and to our congressmen. It does maintain freedom of choice; it does provide access to the same level of care for all citizens; responsibility for care remains in the private sector and control does not have centralization at the national level, but reserves local autonomy. It does, indeed, build on the many strengths of today's existing medical and health care systems while allowing changes to be made where they are needed. It does not dictate practice patterns, or establish strict rules or methods for patient care which would tend to stifle any innovation. And, finally, Medicredit does not obligate the government—which means it does not obligate the people of this nation who pay taxes—to pay for the care of people who can afford to take care of themselves.

The new Nixon Administration Proposal is generally conceded to be a great deal better than the original Nixon Proposal of 1971. Interestingly enough, it is a voluntary program that will provide continuing care and in which the responsibility for health care will remain at the private level, with control being exercised locally. In many respects, its benefit features are quite similar to the AMA proposal in that it does provide for catastrophic coverage and for the use of deductibles and co-insurance. For the worker, the chip plan offers minimum standards of health insurance far better than most Americans now buy with the premium cost split between the employer and employee with the advantage for the employee. For the poor, it offers a much broader package of benefits than is currently available in the majority of the Medicaid programs. For the elderly, it offers a new Medicare formula

which will benefit most older citizens, although it will continue the use of deductibles and co-insurance as a dis-incentive for excessive utilization of medical services. For the self-employed, it offers health protection at a fairly reasonable cost which is unavailable to non-group insured people in most parts of our country. As a gimmick, it does offer something entirely new to the health insurance industry in the use of a "health card" which will enable the patient to defer payment on many services now available only on a cash basis. One phase of the program which is the employer-employee health insurance plan, would be mandated for virtually all workers in U. S. commerce and industry while there would be some voluntary participation by the self-employed and workers in high risk occupations with appropriate incentives provided. Benefits would be essentially the same for all participants in the program. This would include full hospital and doctor services without dollar limits; prescription drugs, in or out of the hospital; well baby care and eye care and routine dental services up to age 13. Cost estimates run anywhere from 16 billion dollars to 40 billion dollars for the first year of operation, but at this point, no accurate estimates of cost are readily available. It is assumed that when the hearings by the ways and means committee are opened, that additional information and analysis of this plan would be available.

The most recent entry, the Mills-Kennedy Bill, parallels in many respects the Nixon Administration Bill. Both offer a wide range of health insurance benefits, including catastrophic coverage, as well as the use of deductibles and co-insurance, although the Mills-Kennedy Bill calls for a lesser degree of co-insurance and deductibles than is called for in the Nixon Administration plan. The principal difference is that the Mills-Kennedy Proposal consists essentially of what one might call an extension of the existing form of medicare coverage. It would be financed by a separate Social Security Tax and the operation of the program would be vested in a new Social Security Board. The Mills-Kennedy Bill would provide benefits subject to an annual deductible of $150.00 and 25 per cent co-insurance. The maximum deductible per family would be $1,000.00 per year as opposed to $1,500.00 under the Nixon plan. The Mills-Kennedy Bill would be mandatory, requiring participation and contribution from all individuals. Practitioners would be free to participate in the program, but if they choose not to, they could not provide services under the system. A community-rated premium would be determined nationally and employers would be required to contribute 3 per cent of payroll up to an earning level of $20,000.00 a year, while employees would contribute 1 per cent up to $20,000.00 annually. The premiums would be collected by the Social Security System and the Social Security Board reporting directly to the President would direct the program. Existing health insurance carriers would be retained to collect co-insurance deductibles, make disbursements, and administer the transaction of insurance claims. It is anticipated that, for all practical purposes, this would phase out the insurance industry from any participation in the health field over a very short period of time. The Mills-Kennedy Bill would also adopt the administration's concept of a health credit card which would allow patients to be billed for co-insurance and deductibles after receiving care. It is also noteworthy that all services reimbursed by the program would be subject to PSRO Review and a similar requirement would exist under the Nixon Administration Plan.

In an editorial in the Wall Street Journal on Monday, April 8th, the following observation was made. "The notion that the Federal Government can hand the American people medical care at no cost is utter nonsense. In both the Kennedy and Nixon Plans, the major additional cost will be borne by employers who, in turn, will pass it along in the form of higher prices, except for that substantial number who already meet minimum standards. Other costs will have to come out of the Federal Budget. If revenues

are not found to pay them, they will be paid through inflation."

However it is done, every citizen must somehow pay. The only magical force that can relieve the burden is greater economic efficiency. The Nixon Plan will try to achieve that through competition. It may not work perfectly, but it will work better than government monopoly and also permit a great deal more personal freedom. For that reason, it is a far better CHIP to play". This is typical of the wide variety of editorial comments that have appeared in the news media since the introduction of these last two entries into the great competition for National Health Insurance. A further in-depth analysis of these two programs will take place in the weeks that follow, but the manner in which they resolve our problems of access, cost and quality has hardly been resolved at this point. Also, lurking in the background is S. 3 The Kennedy-Griffiths-Labor Bill which would truly mandate cradle to grave socialization of the entire delivery of medical and health care services and there hardly seems to be any question that this is the eventual goal of the Kennedy forces. Current attention however, will be focused on the three proposals to which we have briefly addressed ourselves.

We hear from many quarters that the time for such a program of National Health Insurance has indeed arrived, but one decisive question has not yet been answered, and it is this—will the basic decisions about health care continue to be made by those closest to the patient—by those who provide "hands-on care" such as the physician—with the emphasis on "care"? Or will these decisions be circumscribed by new Federal Rules and Regulations and made by those far removed from the primary health care scene—by those whose emphasis will be on "costs"? This is a critical question. A question that deserves all the careful and objective consideration that our society can collectively give it, because the American people, as patients, will be living with the answer for decades to come. Let's give it that kind of consideration now. Both the private and public sectors have made invaluable contributions to health care in America. While physicians have lead the way in insuring the patients receive high quality care, private and governmental insurance programs have eliminated financial barriers to care—to 90 per cent of the population—and thereby helped expand access. It should be emphasized that this has been a collaborative venture—a historical health care evolution which has utilized the unique resources and capabilities of everyone concerned. Nonetheless, we physicians have had reservations about the third party involvement in medicine in general and outright distrust at government programs such as Medicare and Medicaid. These stemmed from the fears that third parties might exert subtle pressures to shift the primary focus of health care away from the patient and toward the socio-economic and political aspects of care. Well, we no longer object to the third party involvement in medicine per se—insofar as the benefits which have accrued to the patient at least, but the real danger in third party involvement is that danger of becoming preoccupied with the health care system itself rather than the people it is supposed to serve, has become all too real. While Medicare and Medicaid have helped the elderly and the poor, there have been far too many instances in which Medicare clerks have refused to recognize legitimate patient needs which are not defined in Federal Rules and Regulations, and in this way, programs begin to take precedence over people and government administrators begin looking over the shoulders of both the patient and physician. Thus with some form of National Health Insurance looming on the horizon, growing numbers of economists, sociologists and politicians have come forward with proposals for drastic changes in our health care system. Many would have us believe that our present system, which they call a non-system must be made more cohesive and more efficient and more productive. In fact, those who deplore these non-systems are acting in good faith from

their point of view. Economists, in particular, are addicted to good order and efficiency. After all, rules and regulations are necessary if government is to function. As society becomes more complex, so does the government and its rules and regulations. Thus, those in government—the bureaucrats —tend to thrive on systems, organizational tables, structured programs and so forth, but these points of view often turn out to be entirely too narrow to encompass and solve complex social problems. There is another law that is worth recalling beyond Murphy's Law and Jones' Law, and this is one which we might call Forrester's Law, which Doctor Jay Forrestor from MIT has provided us to the effect that "efforts to improve complex social ills often tend to make them worse—sometimes much w o r s e—and on occasion calamitous. The best example of this which I can recall is the calamitous great society programs of the 1960's. These programs did not fail because of a lack of good will; they failed because they were not human enough or flexible enough to resolve the social problems. They were money programs, not people programs. Since they failed to recognize the needs, billions of dollars in federal appropriations were mis-directed and eventually wasted. We, as physicians, naturally fear the same thing may happen with health care. We are alarmed at the tendency of social planners to think of health care as a standardized product which physicians provide and patients consume. There are many, such as Senator Kennedy, who believe that the health care product can be provided to every system at reasonable cost if the present system is converted into a government model. But there are sound economic reasons to doubt the wisdom of this path, as, for example, the opinion of one prominent economist, Professor Martin Feldstein, of Harvard, who noted in a recent article in "Scientific American" that a primary cause of the inflationary trend in health care costs is that increasingly liberalized i n s u r a n c e plans themselves have fueled the demands on the delivery system. Such demands and ultimately health care costs would likely soar to even greater inflationary heights under a "free health care for all" plan, such as the Kennedy Labor Plan. Therefore, to avoid the continuing inflation of hospital costs, insurance should concentrate on preventing large, out of pocket expenses instead of prepaying a substantial proportion of typical hospital bills." Dr. Feldstein repeatedly underlined the need for the system to be responsive to the people and stated "Preserv i n g a n d improving the responsiveness of health care to the preferences of the patients is likely to be the most difficult task in our future health care system". The more centralized the control, the greater reliance on federal funds, the more difficult it is to be responsive to real patient needs and wants. Yes, we must protect every American against the high cost of catastrophic illness. We must provide universal access to care. We must moderate rising costs wherever possible. We believe the AMA's plan for National Health Insurance would solve these health care problems and at the same time maintain the plurality of health care alternatives which exist in our present system. Most important, it would allow the private and the public sectors to continue to play collaborating roles in health care delivery, roles which have already brought us to the present state of the art. We believe that the "non-system" of health care is a virtue rather than a fault, as no two patients or their health problems are ever alike and sickness is often a matter of alarm to patients and we face these emotional aspects of illness daily. The patient's faith in his individual physician and in medicine may even involve a harmless touch of therapeutic magic, not taught in medical schools, and these things can all be circumscribed by charts or grafts or tables of organization. By the same token, economists, social engineers and politicians cannot be expected to comprehend their significance and, yet systems, after all, are just arbitrary ways of doing things and patients and their illnesses are not likely to respond to arbitrary systems.

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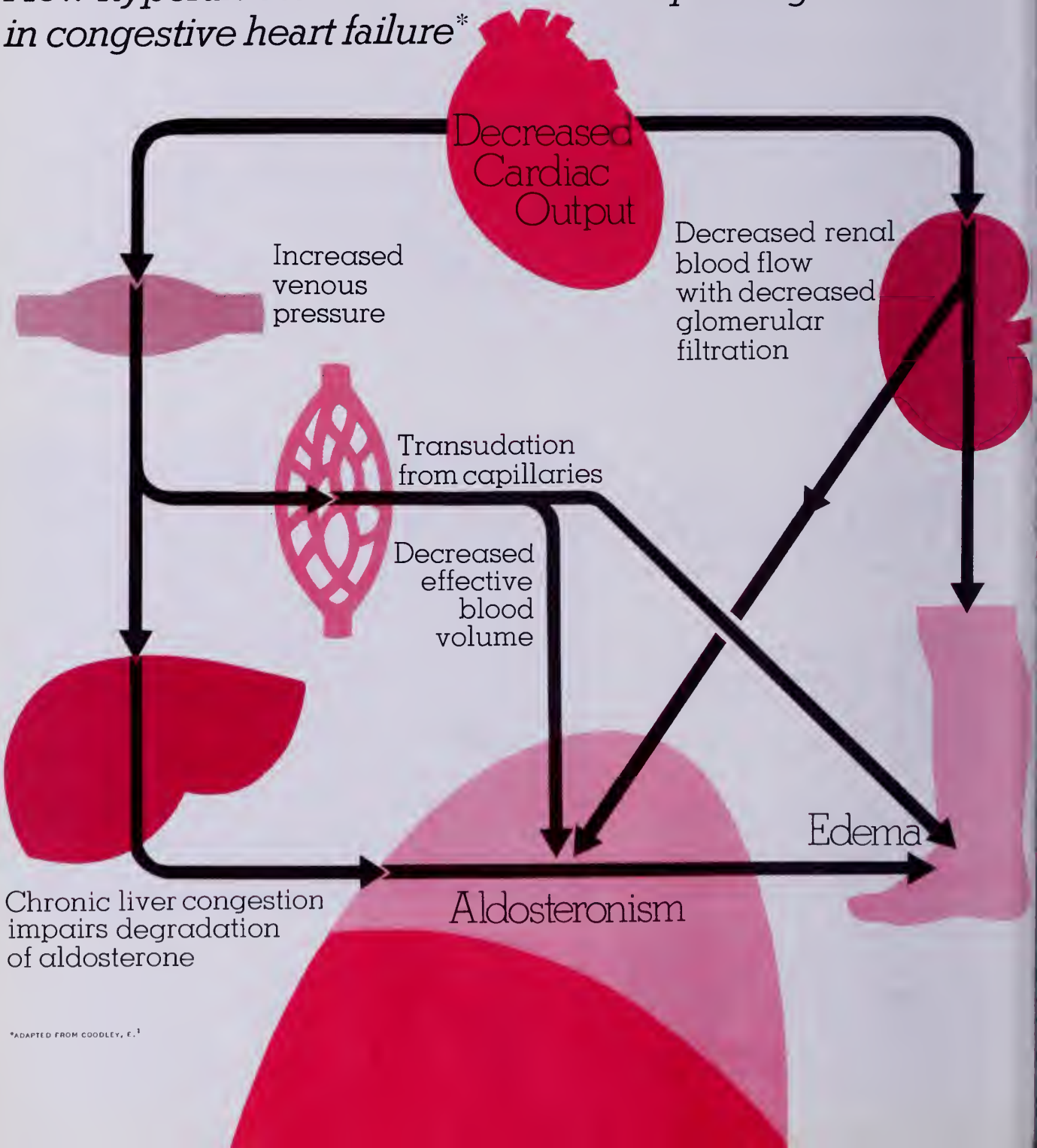
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Contraindications—Acute renal insufficiency, rapidly progressing impairment of renal function, anuria and hyperkalemia.

Warnings—Potassium supplementation may cause hyperkalemia and is not indicated unless a glucocorticoid is also given. Discontinue potassium supplementation if hyperkalemia develops. **Usage of any drug in women of childbearing age requires that the potential benefits of the drug be weighed against its possible hazards to the mother and fetus.**

Precautions—Patients should be checked carefully since electrolyte imbalance may occur. Although usually insignificant, hyperkalemia may be serious when renal impairment exists; deaths have occurred. Hyponatremia, manifested by dryness of the mouth, thirst, lethargy and drowsiness, together with a low serum sodium may be caused or aggravated, especially when Aldactone is combined with other diuretics. Elevation of BUN may occur, especially when pretreatment hyperazotemia exists. Mild acidosis may occur. Reduce the dosage of other antihypertensive drugs, particularly the ganglionic blocking agents, by at least 50 percent when adding Aldactone since it may potentiate their action.

Adverse Reactions—Drowsiness, lethargy, headache, diarrhea and other gastrointestinal symptoms, maculopapular or erythematous cutaneous eruptions, urticaria, mental confusion, drug fever, ataxia, gynecomastia, inability to achieve or maintain erection, mild androgenic effects, including hirsutism, irregular menses and deepening voice. Adverse reactions are infrequent and usually reversible.

Dosage and Administration—For **essential hypertension** in **adults** the daily dosage is 50 to 100 mg. in divided doses. Aldactone may be combined with a thiazide diuretic if necessary. Continue treatment for two weeks or longer since an adequate response may not occur sooner. Adjust subsequent dosage according to response of patient.

For edema, ascites or **effusions** in **adults** initial daily dosage is 100 mg. in divided doses. Continue medication for at least five days to determine diuretic response; add a thiazide or organic mercurial if adequate diuretic response has not occurred. Aldactone dosage should not be changed when other therapy is added. A daily dosage of Aldactone considerably greater than 75 mg. may be given if necessary.

A glucocorticoid, such as 15 to 20 mg. of prednisone daily, may be desirable for patients with extremely resistant edema which does not respond adequately to Aldactone and a conventional diuretic. Observe the usual precautions applicable to glucocorticoid therapy; supplemental potassium will usually be necessary. Such patients frequently have an associated hyponatremia—restriction of fluid intake to 1 liter per day or administration of mannitol or urea may be necessary (these measures are contraindicated in patients with uremia or severely impaired renal function). Mannitol is contraindicated in patients with congestive heart failure, and urea is contraindicated with a history or signs of hepatic coma unless the patient is receiving antibiotics orally to "sterilize" the gastrointestinal tract.

Glucocorticoids should probably be given first to patients with nephrosis since Aldactone, although useful for diuresis, will not directly affect the basic pathologic process.

For **children** the daily dosage should provide 1.5 mg. of Aldactone per pound of body weight.

References: 1. Coadley, E. Consultant 12:106-107, 109, 111, 113, 115 (July) 1972. **2.** Thorn, G. W., and Lauler, D. P.: Am. J. Med. 53:673-684 (Nov.) 1972

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Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

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(Continued from Page 53)

Much of the reduction in population is due to placing over 800 patients in nursing homes and 1000 in transitional facilities (foster care home, boarding houses, and group living, houses in the home community).

Over this same period of time, additional resources have reduced the demand for state hospital beds. Forty psychiatrists have entered private practice in Alabama, a number of general hospitals have developed psychiatric units, (500 beds approximately) and the development of Community Mental Health Clinics, eight of which offer in-patient care (48 beds) have all been factors.

In the area of mental retardation, citizen's interest has been greater and 30 million dollars from state bond funds has been made available for the construction of new facilities. Federal funding programs have also been much more generous. Centers have been completed at Decatur and Mobile and are under construction at Montgomery and Birmingham. Each will provide inpatient programs for 200 patients. Also there have been developed two facilities from former radar bases donated to the Department; one at Thomasville and one at Eufaula. The overall reduction in population is small in comparison, but the Partlow population has reduced from 2200 to 1400, 552 patients are being cared for in the smaller units. Physicians are only performing primary medical care in the MR facilities and this is adequately covered by consultants in the four small institutions. Partlow School has three physicians and should have eight to comply with the court order.

The Department has long advocated the development of small regional state hospitals, and the first step in achievement of this goal is the acquisition of Greil Hospital in Montgomery; a former TB hospital donated to the Department. We are now recruiting staff and plan to open this as a regional hospital this fall. The possibility of acquiring several other former TB hospitals that are being phased out would be a windfall for the Department and the State. These smaller units would be less cumbersome to manage as well as more convenient and could save the State millions of dollars.

The Department badly needs the support of physicians in supporting its programs with the Legislature and assisting in recruiting and maintaining physicians for the Department. We have a long way to go before we can offer the skilled psychiatric care that the citizens should have available.

Highlights of Actions at AMA Annual Convention

A change in the method of electing AMA Trustees, a definitive policy statement on PSRO's, the need for additional safeguards to preserve the confidentiality of medical records, and new recommendations which affect the relationship between hospitals and hospital medical staffs were among the important items approved by Delegates at the 123rd Annual Convention in Chicago.

The House approved bylaws changes which replace the "slot method" of electing trustees by the "simultaneous election of candidates to several positions of equal rank," in which all candidates run for board vacancies on a single ballot.

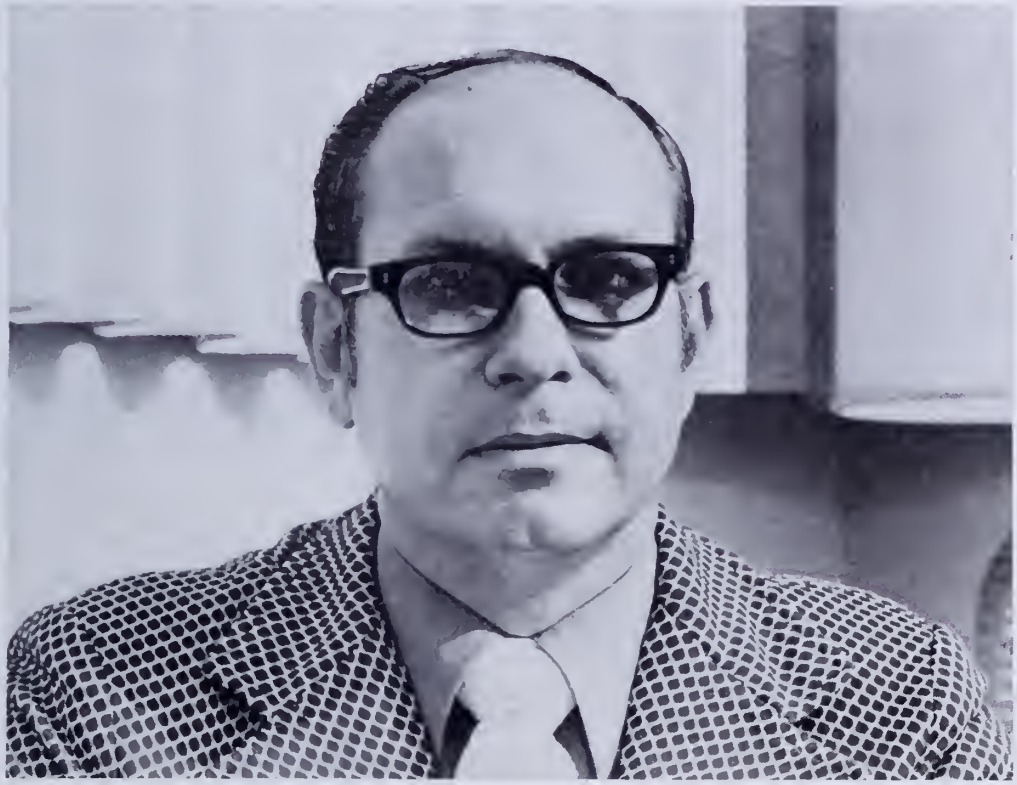
Under the new method, trustees for full, three-year terms are elected first, followed by the selection of trustees to fill unexpired terms. Election of the AMA president-elect, vice-president, and speaker and vice-speaker of the House remains on a separate basis.

Addressing the House on Tuesday, June 25, Vice President Gerald Ford advocated some form of national health insurance, but warned that in the process of its development, there should be no further erosion of patient confidentiality.

Speculation over possible changes in PSRO policy by the House dominated the attention of those attending the convention, including the media.

(Continued on Page 76)

Sometimes filing claims can be a real headache. That's why Blue Cross has professional relations people like Charles Jones to help you out.



Charles and the six other professional relations people throughout Alabama are trained to help you with difficult claims. They're qualified to answer any questions you have.

Our professional relations staffers will even help you train new people. They'll spend a day or so at your office or hospital. Show your people the right way to file claims. And, they'll come back whenever there's a problem.

The next time you run into a complicated claim—or when you have new people in your office—call Blue Cross and ask for the professional relations person in your area. He's around to make your life a little less complicated.

Blue Cross
Blue Shield
of Alabama

During its day-long hearing on Monday, June 24, Reference Committee A considered two reports and 25 resolutions bearing on the issue, and estimated that 64 speakers addressed themselves to PSRO.

But on Wednesday, the Delegates—cognizant of the hours of debate devoted to PSRO at Anaheim last December and in New York City last June—overwhelmingly voted (202 to 24) to terminate debate after a few minutes.

Then the House adopted a substitute resolution on PSRO proposed by the reference committee, whose members emphasized that the resolution provides the association with a "clear-cut, definitive position which cannot be misunderstood by anyone inside or outside this House of Delegates." The resolution:

—Instructs the Board of Trustees to seek constructive amendments to the PSRO program, particularly in potentially dangerous areas such as confidentiality, malpractice, development of norms, quality of care, and the authority of the Secretary of HEW.

—Directs the AMA to continue efforts to achieve legislation which allows the profession to perform peer review according to established medical philosophy and the best interests of the patient.

—Emphasizes that state associations which elect non-compliance with PSRO are not prevented from doing so by the new policy, but urges such associations to develop effective non-PSRO review programs embodying the principles endorsed by the profession as constructive PSRO alternatives.

The new policy also provides that in the event that the PSRO program does, in fact, adversely affect patient care or conflict with AMA policy, then "the Board of Trustees (will) be instructed to use all legal and legislative means to rectify these shortcomings."

Two statements on national health insurance were adopted after lengthy debate. One calls on the Board of Trustees to cooperate with state associations "to attempt to devise mechanisms mutually acceptable to the private medical and insurance communities which will ensure the provision of health insurance coverage through the purchase of private health insurance, and to seek means to secure favorable Congressional and public support for their adoption."

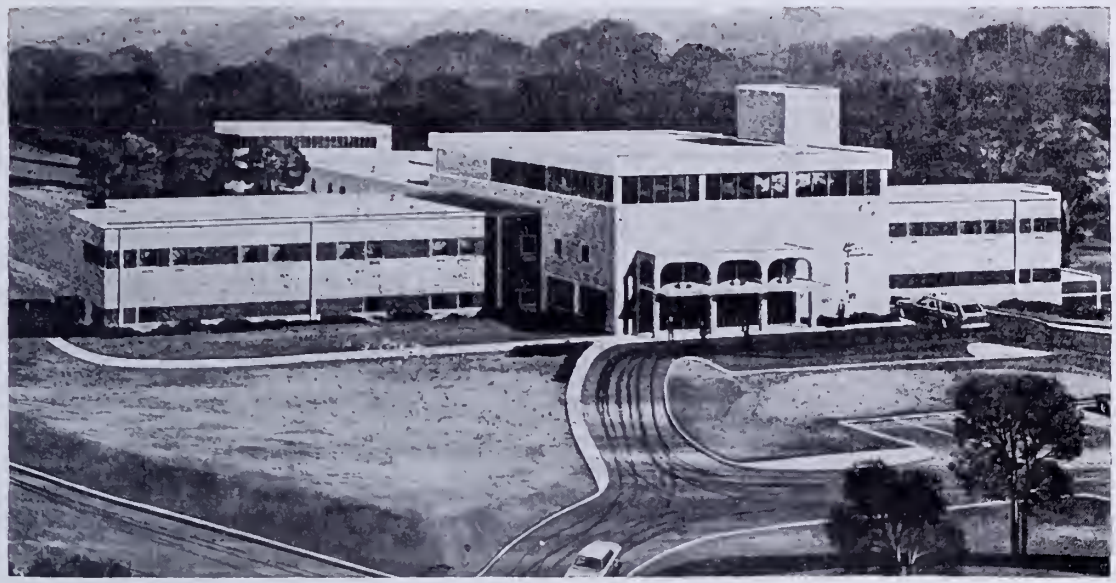
During discussion, it was pointed out that the addition to the NHI policy does not affect AMA support for Medicredit, but is intended to stimulate new health insurance mechanisms. The second resolution calls on the AMA and component associations to work to detach "any national health insurance program from the controlling intrusions of existing PSRO laws and regulations."

The House adopted two resolutions bearing on drugs. One directs the AMA to continue its support of the pharmaceutical industry in efforts to develop and market pharmaceutical products meeting proper standards of safety and efficacy. The other resolution directs the AMA to "exert all efforts to amend or repeal the Kefauver-Harris" drug amendments of 1962, which gave the FDA broad new powers in drug manufacturing and marketing, and which critics of the FDA contend has tended to stifle the developing and marketing of new drugs in the United States.

The House went on record as being opposed to certain bills in Congress which would replace the federal "Health Professions Educational Assistance Act" which expired June 30. Under the bills, comprehensive health planning programs would be replaced with public utility type bodies which would control certain aspects of health education and health care delivery, and medical licensure.

The House adopted two reports bearing on confidentiality of medical records. Report I of the Council on Medical Service describes a wide-ranging series of proposals to enable the medical profession and insurance companies to "maintain the confidentiality and security of patient information." Report S of the Board of Trustees notes that the

(Continued on Page 80)



Hill Crest HOSPITAL

For Intensive Treatment of Psychiatric Disorders

This 113-bed non-governmental psychiatric hospital provides modern facilities for diagnosis and treatment of patients with all degrees of illness, including those who show severely disturbed behavior. Alcoholic and drug abuse patients are also accepted.

In addition to care by psychiatrists and by consultants in all medical specialties, the treatment program includes occupational, recreational, and physical therapy, social services, and tutoring. Emphasis is on short-term, intensive treatment of voluntary patients.

Hill Crest is a member of: American Hospital Association, National Association of Private Psychiatric Hospital, Alabama Hospital Association, Birmingham Regional Hospital Council.

Accredited by Joint Commission on Accreditation of Hospitals. Medicare Approved. Blue Cross Participating Hospital.

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James K. Ward, M. D.
F. Joseph Nuckols, M. D.
James A. Greene, M. D.
Charles W. Moorefield, M. D.
Otto F. Eisenhardt, M. D.

ADMINISTRATOR:

Robert V. Sanders

HILL CREST HOSPITAL

Hill Crest Foundation, Inc.

6869 Fifth Avenue South **Birmingham, Alabama 35212**

PHONE: 205-836-7201

CONTINUING MEDICAL EDUCATION

by Larry Dixon

The following questions have been provided by the American College of Physician's "Medical Knowledge Self-Assessment Program."

DIRECTIONS—Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the *one* that is BEST in each case.

1. A group of medical students presented themselves to their health clinic within two to three days of each other, complaining of fever, retro-orbital headache, abdominal discomfort, myalgia and a transient macular rash. Physical findings included splenomegaly, lymphadenopathy (cervical, axillary and inguinal) and, in some instances, hepatomegaly. Lymphocytosis and "atypical" lymphocytes were detected in those on whom blood studies were made. The only factor common to this group was that they had all eaten rare hamburgers about 8 to 13 days before they became ill.

Which of the following was most likely responsible for this syndrome?

(a) Salmonella typhimurium

(b) Trichinella Spiralis

(c) Group A Streptococcus pyogenes

(d) Toxoplasma gondii

(e) EB (Epstein-Barr) virus

2. Evidence that pemphigus vulgaris is an autoimmune disease is based on the presence of antibodies to

(a) interepithelial antigen

(b) cytoplasmic antigen

(c) nuclear antigen

(d) histocompatibility antigen

(e) mitochondrial antigen

3. A 67-year-old man, who was admitted to the hospital, has been obtunded and febrile for three days. Tremors of the hands, jaws, and extended tongue are prominent. Nuchal rigidity is present. Cerebrospinal fluid obtained by a lumbar puncture contains 100 cells/cu mm with 60 per cent neutrophils, protein 40 mg/100 ml and glucose 60 mg/100 ml. The concomitant blood glucose is 105 mg/100 ml.

Which of the following would be most appropriate at this point?

(a) Administration of penicillin, 15 million units/day, intravenously

(b) Observation for 48 hr.

(c) Administration of isoniazid, 300 mg/day and streptomycin, 2 gm/day

(d) Administration of methicillin, 8 gm/day, intravenously

(e) Administration of ampicillin, 8 gm/day, intravenously

4. A 50-year-old archeologist, who had just returned from New Mexico, presented with a two-day history of spiking fever with chills and a rapidly growing lump in the left groin. Examination showed a temperature of 40.6 C (105.0 F); blood pressure 90/50 mm Hg; and a pulse rate 130/min. A fist-sized, red, fluctuant mass was evident in the left femoral triangle. A 0.5-cm diameter crusting lesion was noted over the left lateral malleolus. The patient's precarious condition seemed to warrant empirical therapy after blood cultures were taken.

Which of the following medications would be expected to be most effective?

(a) Cephalothin (Keflin), 8 gm/day

(b) Methicillin, 8 gm/day

(c) Streptomycin, 2 gm/day

(d) Penicillin, 20 million units/day

(e) Erythromycin, 2 gm/day

5. Which of the following statements pertaining to commercially available gamma globulin (immune serum globulin) is correct?

(a) It contains immunoglobulin G (IgG), immunoglobulin A (IgA) and immunoglobulin M (IgM) in approximately the same proportions as in normal serum

(b) A serum concentration of approximately 900 mg of immunoglobulin G (IgG) per 100 ml must be maintained to be reasonably effective in preventing pyogenic infections

(c) It should be given intramuscularly since an appreciable percentage of patients experience anaphylactoid reactions to intravenous administration

(d) In children with perennial asthma, a weekly intracutaneous injection of 0.1 ml of commercially available gamma globulin (Immune serum globulin) reduces the incidence of attacks

(e) Its usefulness is limited because of the danger of serum hepatitis

6. A 50-year-old man with poorly controlled epilepsy has fever and right posterior pleurisy of one week's duration. Examination discloses a wasted, edentulous man, with a temperature of 38.9 C (102.0 F), and dullness to percussion beneath the right scapula. A roentgenogram of the chest shows involvement of the right upper lobe with early cavitation.

Which of the following organisms is the most likely cause of this man's illness?

(a) Bacteroides funduliformis

(b) Staphylococcus aureus

(c) Pseudomonas aeruginosa

(d) Klebsiella pneumoniae

(e) Mycoplasma pneumoniae (Eaton's agent)

7. Blood levels or titers of which of the following correlate best with the activity of lepus nephritis?

(a) Beta-lc globulin

(Continued on Page 86)

Is there a tablet containing *only* an expectorant and *only* Glyceryl Guaiacolate? YES!

HYTUSS TABS

1. Patient acceptable tablet dose.
2. Single entity expectorant.
3. Measured tablet dose.
4. Sugar-free tablet.

An identifiable white, scored tablet which significantly stimulates the secretion of respiratory tract fluid.

(GLYCERYL GUAIACOLATE 100mg.)





Composition: Each sugar-free compressed tablet contains glyceryl guaiacolate 100mg. **Action and Use:** This preparation utilizes the effective expectorant action of glyceryl guaiacolate which significantly stimulates the secretion of respiratory tract fluid. The increased flow of less viscid fluid favors expectoration and has a demulcent effect on the tracheobronchial mucosa. The primary usefulness of Hytuss Tabs is to promote the change from a dry, unproductive cough to a productive cough. Hytuss is therefore useful in treating coughs due to the common cold, bronchitis, laryngitis, tracheitis, pharyngitis, influenza and the measles. The expectorant action of Hytuss may also provide symptomatic relief in some chronic respiratory disorders when the patient experiences spasms of dry nonproductive coughing. **Precautions:** Extremely large amounts may cause nausea and vomiting. **Administration and Dosage:** *Adults*—1 tablet four times daily. *Children*—6 to 12 years of age; ½ tablet 3 or 4 times daily. HOW SUPPLIED: White, scored, sugar-free, tablet in bottles of 100 - 1,000 - 5,000. **Product Identification Mark:** Hy. **Literature Available:** On request.

Available through all drug wholesalers.

Hyrex

HYREX COMPANY

832 South Cooper
Memphis, Tenn. 38104

(Continued from Page 76)

Council on Legislation is developing model legislation as a guide to possible state legislation to preserve confidentiality, and that a model bill should be ready for consideration by the House at the 1974 Clinical Session in Portland, Oregon.

Delegates supported in principle a report from the Council on Medical Service for the development of a nationwide health insurance program for migrant workers. The report drew some concern about safeguards for the medical records of migrants. The report was referred to the Board of Trustees for development of appropriate legislation.

The House put the AMA on record as recommending that the shipment of radioactive materials for medical use via airlines be shipped "under strictly enforced, existing federal regulations which guarantee the actual low potential hazard" of such materials to passengers and crews, and directed that the recommendation be presented to appropriate federal agencies for implementation.

In other actions affecting physicians and the public, the House directed that:

—The new national blood policy be privately implemented through the appropriate organization of the AMA, state and county medical societies and their committees on transfusion.

—The AMA endorse use of the condom as one of the effective methods of venereal disease control.

The House adopted the 104-page "Report on Physician-Hospital Relations, 1974," compiled by the Council on Medical Service and its Committee on Private Practice. An update of an earlier report made in 1964, the 1974 version contains 14 specific recommendations to cope with problems developing between some hospitals and their medical staffs. Among other things, the recommendations are aimed at protecting medical staffs against unilateral action by hospital governing boards relative to staff bylaws, rules and regulations.

Rondomycin®
(methacycline HCl)

CONTRAINDICATIONS: Hypersensitivity to any of the tetracyclines.
WARNINGS: Tetracycline usage during tooth development (last half of pregnancy to eight years) may cause permanent tooth discoloration (yellow-gray-brown), which is more common during long-term use but has occurred after repeated short-term courses. Enamel hypoplasia has also been reported. **Tetracyclines should not be used in this age group unless other drugs are not likely to be effective or are contraindicated.**
Usage in pregnancy. (See above **WARNINGS** about use during tooth development.)
Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.
Usage in newborns, infants, and children. (See above **WARNINGS** about use during tooth development.)
All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrease in fibula growth rate observed in prematures given oral tetracycline 25 mg/kg every 6 hours was reversible when drug was discontinued.
Tetracyclines are present in milk of lactating women taking tetracyclines.
To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The anti-anabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.
Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.
PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.
In venereal disease, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.
Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.
In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).
Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.
Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.
ADVERSE REACTIONS: Gastrointestinal (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in the anogenital region.
Skin: maculopapular and erythematous rashes; exfoliative dermatitis (uncommon). Photosensitivity is discussed above (See **WARNINGS**).
Renal toxicity: rise in BUN, apparently dose related (See **WARNINGS**).
Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.
Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.
Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.
Over prolonged periods, tetracyclines have been reported to produce brown-black microscopic discoloration of thyroid glands, no abnormalities of thyroid function studies are known to occur.
USUAL DOSAGE: Adults—600 mg daily, divided into two or four equally spaced doses. More severe infections: an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. Gonorrhea. In uncomplicated gonorrhea, when penicillin is contraindicated, 'Rondomycin' (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule: 900 mg initially, followed by 300 mg q.i.d. for a total of 5.4 grams.
For treatment of syphilis, when penicillin is contraindicated, a total of 18 to 24 grams of 'Rondomycin' (methacycline HCl) in equally divided doses over a period of 10-15 days should be given. Close follow-up, including laboratory tests, is recommended.
Eaton Agent pneumonia 900 mg daily for six days.
Children—3 to 6 mg/lb/day divided into two to four equally spaced doses.
Therapy should be continued for at least 24-48 hours after symptoms and fever have subsided.
Concomitant therapy: Antacids containing aluminum, calcium or magnesium impair absorption and are contraindicated. Food and some dairy products also interfere. Give drug one hour before or two hours after meals. Pediatric oral dosage forms should not be given with milk formulas and should be given at least one hour prior to feeding.
In patients with renal impairment (see **WARNINGS**), total dosage should be decreased by reducing recommended individual doses or by extending time intervals between doses.
In streptococcal infections, a therapeutic dose should be given for at least 10 days.
SUPPLIED: 'Rondomycin' (methacycline HCl): 150 mg and 300 mg capsules, syrup containing 75 mg/5 cc methacycline HCl.

Before prescribing, consult package circular or latest PDR information.

Rev. 6/73

WALLACE LABORATORIES
CRANBURY, NEW JERSEY 08512



When the focus is on bronchitis due to susceptible strains of *H. influenzae* and pneumococci*

Rondomycin® 300 mg. Capsules

[methacycline HCl]

Delivers from the very first dose:

Studies show that after the first dose serum levels rapidly rise above minimum *in vitro* inhibitory concentrations

*Since many strains are known to be resistant, routine sensitivity testing is recommended.

The Role of the Detail Man

Opinion & Dialogue



Dr. Willard Gobbell
Family Physician
Encino, California

"I may be prejudiced, but I am very much in favor of the detail men I meet. Most of them are knowledgeable about the drugs they promote and can be a great help in acquainting me with new medication."

Family Physician's Perception

I think that most general practitioners in this area feel as I do about the detail man. Over the years I have gotten to know most of the men who visit me regularly and they in turn have become aware of my particular interests and the nature of my practice. They, therefore, limit their discussion as much as possible to the areas of interest to me. Since I usually see the same representative again in future visits, it is in his best interest to supply me with the most honest, factual, as well as up-to-date information about his products.



Dr. Jeremiah Stamler
Chairman
Department of Community Health and Preventive Medicine, and Dingman Professor of Cardiology
Northwestern University Medical School

"In the total picture of dealing with health problems in this countr there is a potential for detail men to play a meaningful role."

The Positive Influence

My contact with representatives and salesmen of the pharmaceutical industry is the type of con tact that people in a medical cente research people, and academic people have and that's in all likelih on a somewhat different level from that of the practicing physician.

Let me touch on how I person ally perceive the role of the sales representative. These men reach large numbers of health professionals. Thus they could be—and at times actually are—disseminators of useful information. They could consistently serve a real edu cational function in their ability to discuss their products.

At present they do distribute printed material, brochures and pamphlets—some of it scientifically sound and therefore truly useful—as well as some excellent film produced by the pharmaceutical industry. When they function in th

He a Source of Information?

Yes, with certain reservations. e average sales representative s a great fund of information out the drug products he is re- onsible for. He is usually able to swer most questions fully and elligently. He can also supply rints of articles that contain a eat deal of information. Here, , I exercise some caution. I usu- y accept most of the statements d opinions that I find in the ers and studies which come m the larger teaching facilities. oes without saying that a physi- n should also rely on other rces for his information on armacology.

ining of Sales Representatives

Ideally, a candidate for the sition as a sales representative a pharmaceutical company uld be a graduate pharmacist o has a questioning mind. I don't nk this is possible in every case, d so it becomes the responsibility of the pharmaceutical company to train these individuals comprehensively. It is of very great importance that the detail man's knowledge of the product he represents be constantly reviewed as well as updated. This phase of the sales representative's education should be a major responsibility of the medical department of the pharmaceutical company.

I am certain that most of these companies take special care to give their detail men a great deal of information about the products they produce—information about indications, contraindications, side effects and precautions. Yet, although most of the detail men are well informed, some, unfortunately, are not. It might be helpful if sales representatives were reassessed every few years to determine whether or not they are able to fulfill their important function. Incidentally, I feel the same way about periodic assessments of everyone in the health care field, whether they be general practitioners, surgeons or salesmen.

Value of Sampling

I personally am in favor of limited sampling. I do not use sampling in order to perform clinical testing of a drug. I feel that drug testing should rightly be left to the pharmacology researcher and to the large teaching institutions where such testing can be done in a controlled environment.

I do not use samples as a "starter dose" for my patients. I do, however, find samples of drugs to be of value in that they permit me to see what the particular medication looks like. I get to see the various forms of the particular medication at first hand, and if it is in a liquid form I take the time to taste it. In that way I am able to give my patients more complete information about the particular medications that I prescribe for them.

---

pacity they are indeed useful; rticularly in the fact that they seminate broadly based educa- nal material and serve not just 'pushers" of their drugs.

Other Side of the Coin

Obviously, the pharmaceuti- companies are not producing all material as a labor of love— y are in the business of selling ducts for profit. In this regard ambitious and improperly moti- ed sales representative can rt a negative influence on the cticing physician, both by pre- ting a one-sided picture of his duct, and by encouraging the ctitioner to depend too heavily drugs for his total therapy. In se ways, the salesman has often orted objective reality and lermined his potential role as an icator.

Industry Responsibility

Since the detail man must be nformation resource as well as presentative of his particular rmaceutical company, he uld be carefully selected and thoroughly trained. That training, perforce, must be an ongoing one. There must be a continuing battle within and with the pharmaceutical industry for high quality not only in the selection and training of its sales representatives, but also in the development of all of its promotional and educational material.

The industry must be ready to accept constructive as well as corrective criticism from experts in the field and consumer spokesmen, and be willing to accept independent peer review. The better educated and prepared the salesman is, the more medically accurate his materials, the better off the pharmaceutical industry, health professionals and the public—*i.e.*, the patients—will be.

Physician Responsibility

The practicing physician is in constant need of up-dated information on therapeutics, including drugs. He should and does make use of drug information and answers to specific questions supplied by the pharmaceutical representative. However, that information must not be his main source of continuing education. The practitioner must keep up with what is current by making use of scientific journals, refresher courses, and information received at scientific meetings.

The practicing physician not only has the right, but has the responsibility to demand that the pharmaceutical company and its representatives supply a high level of valid and useful information. I feel certain that if such a high level is demanded by the physician as well as the public, this demand will be met by an alert and concerned pharmaceutical industry.

From my experience, my impression is that sectors of the pharmaceutical industry are indeed ethical. I challenge the industry as a whole to live up to that word in its finest sense.

Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D.C. 20005

P·M·A



What does man have in common with Samson?

Neither man nor the gorilla can synthesize vitamin C. Interestingly, the slow loris, a primate much further down the evolutionary scale, can convert L-1,4-gulonolactone to ascorbic acid in its liver and presumably does not require an exogenous source of ascorbic acid.

Because man can neither synthesize vitamin C nor store most of the water soluble vitamins, these nutrients must be replenished continuously in order to maintain normal tissue levels.

Generally, this is accomplished in his daily diet. But under conditions of illness, stress, in convalescence or following surgery, vitamin stores may be depleted or metabolic demands increased.

In such cases, Surbex-T may be indicated. Surbex-T restores the water-soluble vitamins with each tablet providing 500 mg. of vitamin C plus high potency B-complex.

ABBOTT

SURBEX-T® 500 mg. of Vitamin C with High Potency B-Complex

Restores what the body cannot effectively store

403481

PHYSICIAN PLACEMENT SERVICE IN ALABAMA

The Physician Placement Service of the Medical Association of the State of Alabama is designed to assist both physicians and communities. MASA members having knowledge of practice opportunities or wishing to relocate their own practices are urged to communicate with the Placement Service. For further information: write Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, 19 South Jackson Street, Montgomery, Alabama 36104, or Telephone 263-6441.

Locations Wanted

General Practice—

Age 28; Indiana University 1972; Board eligible; seeking associate or group. Available July 1975. LW-1/3

Age 47; Manila Central University 1955; Board eligible; seeking solo, associate, industrial, institutional or emergency room (pathology or general practice). Available Fall 1974 or 1975. LW-1/5

Age 31; Indiana University 1970; seeking group, institutional or emergency room practice. Available October 1974. LW-1/6

Internal Medicine—

Age 37; Tulane, 1966; Board eligible; seeking solo, associate in family practice-internal medicine. LW-4/1

Age 31; Medical College of Georgia, 1968; Board eligible; seeking associate practice in North Alabama or coastal area. Available July 1975. LW-4/4

Age 33; Medical College of South Carolina, 1966; Board certified; seeking group or associate. Available September 1975. LW-4/5

Age 32; Emory University, 1968; seeking solo, associate or group practice. Available July 1975. LW-4/6

Age 45; Washington University, St. Louis, 1954; Board certified; seeking solo, associate or group practice (interest in gastroenterology). Available August 1975. LW-4/7

Age 30; Cornell Medical School 1970; Board certified; National Board; seeking group practice. Available September 1975. LW-4/11

Age 32; University of Arkansas 1968; Board eligible; seeking associate, group or institutional practice (interest in pulmonary medicine). Available July 1975. LW-4/12

Ophthalmology—

Age 38; Baylor 1962; Board certified; seeking solo, associate, group, industrial, or institutional practice. Available September 1974-Jan. 1975. LW-10

Age 31; Vanderbilt University 1968; National Board; Available July 1975. LW-10/1

Surgery—

Age 34; Bowman Gray 1966; Board certified; seeking associate or group. Available August 1975. LW-8/3

Age 31; American University, Beirut Lebanon 1966; National Board; seeking associate or group practice. Available October 1974. LW-8/4

Age 35; Javeriana, Bogota, South America 1962; Available January 1975. LW-8/6

Age 31; University of Santo Tomas 1965. LW-8/7

Urology—

Age 32; Georgetown University, 1968; National Board; Board eligible; seeking associate, group or industrial. Available Fall 1975. LW-9/2

Age 45; Medical College of South Carolina 1954; Board certified; seeking solo, associate or group. Available September 1974. LW-9/3

Physicians Wanted

General Practitioners—

Physician wanted for general practice in town of 7,000 population with trade area of 15,000 population located in central Alabama. 35-bed hospital located in town. Office space available near hospital. Nearest large city with population of 50,000 is 30 miles away. Numerous churches and schools. Lumber and textile industry. Recreational activities and civic clubs. PW-8/2

Physician wanted for general practice, group or associate, in University town of 40,000 population. Salary and partnership negotiable. PW-1

General Practitioner wanted for multi-specialty group practice on Bay in South Alabama. Modern offices, near hospital. Salary with incentive available. Excellent churches, schools and recreational facilities. PW-2

Associate wanted in a three physician general practice in a rural county near Mobile. Salary initially with anticipated early partnership arrangement. 30-bed county hospital adjoining the office. PW-3

Opportunity for General Practitioner in South Alabama community with a trade area of 20,000 to 25,000 population. Modern hospital with certified surgeon, radiologist, and cardiologist on staff. Present physicians interested in partner, forming Professional Association or may enter into private practice. Free office space available, or physicians in the area interested in building new office building. Excellent school system with junior college within 15 miles. PW-4

Family physician needed as associate with well established physician in small North Alabama town. Modern, fully equipped hospital. Office space and equipment available. Salary negotiable plus other benefits. PW-5

Opportunity for young internist or family physician to join three man group in rapidly growing town of 12,000 population in Tennessee Valley. Excellent hospital. Modern well-equipped office. PW-6

Opportunity in southeast Alabama in town of 3,000 population, trade area of 15,000 population. Nearest large city, 8 miles, 40,000 population, and 2 large hospitals. Office space and housing readily available. Industrial and agricultural area. Churches, schools, civic and social activities. PW-7

Opportunity in south Alabama in town of 2,700 population, trade area of 15,000 population. Nearest large city of 30,000 population located 45 miles. Nearest hospital is 10 miles. One physician now engaged in practice in the town. Necessary arrangements will be made for office space, equipment, and housing. Industrial and agricultural area. Churches, schools, civic and social activities. PW-8

General Practitioner urgently needed for busy, active practice in rural densely populated area in Northeast Alabama. Modern fully equipped clinic with X-ray, lab facilities, four examining rooms, minor surgery, emergency room, physician's office, large twenty-patient waiting room, spacious business and records section, nurses and physicians lounge. Office personnel available. Accredited general hospital nearby. PW-8/1

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Opportunity for *Family Practice* and *Internists* in central Alabama town in population group 10,000-25,000. PW-13

Student Health Physician. (particularly interested in female physician) Opportunity available for clinical medicine in a University of 15,000 students. Four weeks annual leave, sick leave, retirement, salary negotiable. PW-14

Wanted, internists, generalists, radiologist, orthopedist, general surgeons. Town of 15,000 population in county of 45,000 population located in Southeast Alabama. Attractive for a group setup. High income area and marked scarcity of physicians. Excellent schools and recreational facilities. Newly expanded hospital. PW-9

General Surgeon and Ophthalmologist wanted for community of 22,000 population and 45,000 service area. New hospital with eight general practitioners and one Board certified radiologist. Schools for blind and deaf located in the town. Excellent schools and recreational facilities. PW-11

(Continued from Page 79)

(b) Antinuclear antibody

(c) Anticytoplasmic antibody

(d) Immunoglobulin M (IgM)

(e) Immunoglobulin G (IgG)

8. A 17-year-old boy has had repeated episodes of pneumonia, empyema, liver abscesses and osteomyelitis since infancy. The immunoglobulin levels were normal, and a liver biopsy showed miliary granulomatous lesions. He now presents with diffuse lymphadenopath, hepatomegaly and septic arthritis of the knee.

Which of the following would be of greatest diagnostic value?

(a) Immunoelectrophoresis

(b) Candidin skin test

(c) Nitroblue tetrazolium dye reduction

(d) Lymphocyte responses in vitro to phytohemagglutinin

(e) Lymph node biopsy

9. A nurse, who has been working on neurosurgical service, went to a physician because she has had swelling and severe pain and tenderness involving the terminal

(Continued on Page 94)

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Tests Identify Rare Metabolic Disorders In The Newborn In Time To Prevent Damage

Sophisticated yet simple screening techniques broadly applied are turning up a wide variety of "rare disorders" in infants early enough to make corrective treatment effective and to prevent mental retardation and other serious consequences, according to Dr. Harvey L. Levy.

Writing in the May issue of The Upjohn Company's scientific publication, Dr. Levy, Assistant Director of Massachusetts' Public Health Diagnostic Laboratories, pointed out that blood testing for phenylketonuria (PKU)—now routine—has been joined by urine screening for such maladies as Hartnup "disease," iminoglycinuria, cystinuria and histidinemia. The Harvard neurologist and pediatrician also reported that a series of routine tests performed on blood specimens (samples taken for PKU testing) can turn up such metabolic disorders as maple syrup urine disease, galactosemia and homocystinuria.

Dr. Levy reported that based on urine screening of 340,000 babies since 1968, the incidence of Hartnup "disease," iminoglycinuria, cystinuria and histidinemia is similar to that of PKU—1:15,000. At least eight other metabolic diseases of lower incidence were also discovered via urine screening by the Massachusetts Department of Public Health.

All of these diseases detected by blood or urine tests stem from difficulty in metabolizing certain amino acids and are inherited.

They are identified by excess excretion in urine of, for example, a variety of amino acids (Hartnup "disease"), cystine (cystinuria), iminoglycine (iminoglycinuria) and an inborn increase in blood histidine (histidinemia).

A urine test is the only way to identify some of the diseases, Dr. Levy said, because the excessive acids are either not present in blood, or cannot be picked up by present blood test methods.

The most important results of thorough blood testing and urine screening he explained, were early detection, allowing immediate therapy which, in turn, prevented clinical disease, and the discovery that some congenital metabolic disorders were not so rare as previously thought.

In some cases, affected infants left untreated, either die in infancy or become mentally and/or physically retarded, the Harvard physician pointed out. Four infants in the screening involving all Massachusetts hospitals by 1968, were discovered to have argininosuccinic acidemia, a disorder in which the urea cycle is impaired, and where ammonia and argininosuccinic acid accumulate in the blood. A simple treatment—low-protein diet—prevented brain damage for all four infants.

The studies further disclosed that some disorders—Hartnup "disease," cystathioninuria, iminoglycinuria, histidinemia—previously thought to be dangerous, are almost certainly benign.

Dr. Levy concluded: "For a comprehensive screening program, such as that in Massachusetts, specimens of cord blood, newborn blood and urine should be tested for each infant. It is now clear that many common and even rare metabolic diseases can be detected and effectively treated in infancy."

Organizing and Establishing A Rural EMS System*

Bond L. Bible, Ph.D., Secretary
AMA Council on Rural Health

Small rural communities can have effective big-city emergency medical services - if they organize. This point was made by John G. Wiegenstein, M. D., a founder of the American College of Emergency Physicians, and a member of the AMA's Committee on Community Emergency Services, in a workshop at the recent National Conference on Rural Health (NCRH).

One organizational plan, calling for the development of local Emergency Medical Service (EMS) Councils, a concept supported by the AMA's Commission on Emergency Medical Services, was recommended by Dr. Wiegenstein. He stated an EMS Council could effectively organize and initiate EMS planning, education, and funding activities for large service areas in rural regions.

"To begin an EMS Council, communities should join together to form an ad hoc fact-finding committee and seek the cooperation of a local physician interested and involved in emergency medicine, as well as other concerned individuals," said Dr. Wiegenstein, who is actively engaged in the full-time practice of emergency medicine and a key figure in the organization of a three-county wide EMS Council around Lansing, Michigan. "The committee's goal should be to collect data about emergency medical transportation, communication, and facilities."

Having completed their research, the committee should contact providers of health services, public agencies involved with health and safety, community leaders, and the news media, all of whom would form the EMS Council membership. From this broad-based support group, the EMS Council should elect a board of directors, write by-laws, and seek a nonprofit tax-exempt rating from the Internal Revenue Service.

There are several ways to fund the EMS Council. At first, monies can be obtained by assessing members minimal dues. Later, the Council may wish to seek additional financial resources through the Comprehensive

Health Planning agency (CHP) or by applying for a share of the millions of federally appropriated dollars recently designated to establish and improve rural EMS systems.

The EMS Council budget should be able to support the work of at least five subcommittees: personnel and training, transportation, facilities, communication, and public relations.

These five subcommittees can then turn their attention to seeing that their area meets the minimum needs for a proper rural EMS plan, as delineated by Julian A. Waller, M. D., of the University of Vermont College of Medicine, Burlington, and a participant in the NCRH workshop.

Dr. Waller carefully points out that, "rural communities are not merely miniaturized versions of cities and suburbs. There are differences not only in size but in organization and outlook." Thus the EMS systems in rural areas must be specifically designed and not mere copies of urban programs.

Among the provisions of a good rural EMS system recommended by Dr. Waller are:

- Two-way radio contact between ambulances and hospitals.
- Nurse or physician's assistant, properly trained in emergency procedures, in the hospital and available to the emergency room 24 hours a day.
- Careful plans to cover emergency activities while the physician is enroute to the hospital.
- A physician trained in emergency medicine on-call or in the hospital 24 hours a day and available within 15 minutes.
- Proper signs on highways and about the community pointing to the location of the hospital or treatment facility, and proper signs and arrows pointing to the location of the emergency center within the hospital.

Dr. Waller notes that many of the above points require EMS Councils to work closely with the administration and medical staff of their local hospital, who ideally would be represented on the Council.

Other EMS Council projects can include coordinating relations and emergency procedures with police and ambulance services and civil defense units. Community safety and health education is yet another area that many EMS Councils have worked to improve.

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Environmental Changes Called Inevitable In Food Production

There is much greater health risk from mass starvation than from pesticides and chemical fertilizers, says a new book from the American Medical Association.

Society must accept a certain element of risk to the quality of the environment from production and processing of food to maintain the highest possible level of food production in a world where millions already are chronically hungry, says the book.

The authors call for a reordering of priorities to seek solutions to the environmental and food supply problems, so that continued high production of food is maintained with a minimum of damage to the environment.

The book—"Environmental Quality and Food Supply"—is the outgrowth of an AMA symposium on the subject.

"A present day madness exists within our society pertaining to the environment and

the safety, adequacy and quality of our food supply," says the introduction.

Pesticides are necessary to keep up the absolutely vital high production of food. So are commercial fertilizers. Yet both have come under constant attack in recent years, and sharp restrictions have been imposed in some instances.

Unpredictable and often hastily-made restrictions have made it less attractive to invest in development of those pesticides that are highly specific in their action. It costs $5 million to develop a new pesticide, with a lapse of 13 to 18 years before the company can begin to break even on its investment. In the face of the present climate of banning or restricting certain pesticides, companies are now reluctant to invest heavily in new products.

Nitrites in fertilizers have come under fire, and "it is appalling to consider the potentially disastrous consequences in terms of food production that could result from unwise restrictive action."

There is much public misinformation regarding food additives, chemicals or processing techniques. A better scientific perspective is called for.

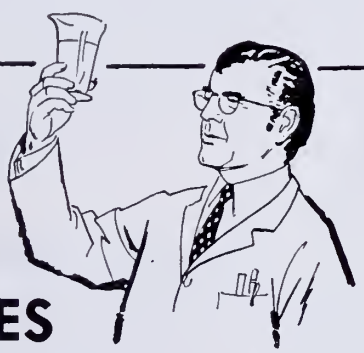
A plea for better public understanding of the food processing mechanism is voiced.

Disposition of cannery wastes has become a major environmental problem.

"The liquid waste from fruit and vegetable processing operations does not constitute a direct public health problem. These wastes contain only fruit or vegetable residues, which are nontoxic, and pesticide residues and heavy metal contaminants are present in such low concentration as to be insignificant for human health."

The book is published by Futura Publishing Co., Mount Kisco, N. Y., through arrangement with the AMA. It is edited by Philip L. White, Sc.D., and Diane Robbins of the AMA's Department of Foods and Nutrition.

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American College of Surgeons Scores Medical Reimbursement For Chiropractic Services

The Board of Regents of the American College of Surgeons recently made public a statement sharply condemning the inclusion of chiropractic services for reimbursement under Medicare and Medicaid.

Such inclusion implies that chiropractic services are considered legitimate medical services by the federal government—a designation with which the Board of Regents, the College's policy-making body, sharply disagrees.

Calling the situation "congressional endorsement of cultism," the Board criticized Congress for having approved such an arrangement over the "wide range of contrary recommendations" which it received from such agencies as the Department of Health, Education and Welfare; the Task Force on Medicaid and Related Programs; the National Advisory Commission on Health Manpower; and the Health Insurance Benefits Advisory Council.

The Board noted that Congress had endorsed chiropractic services despite the fact that it was "ostensibly concerned with high quality medical care (and) often critical of the medical profession's own efforts in this regard."

Citing the College's historical goal to improve the care of surgical patients, the Board said that the College would be derelict if it did not protest in this instance.

The Regents endorsed the American Medical Association's statement on chiropractic, which says, in part, "It is the position of the medical profession that chiropractic is an unscientific cult whose practitioners lack the necessary training and background to diagnose and treat human disease. Chiropractic constitutes a hazard to rational health care in the United States, because of the substandard and unscientific education of its practitioners, and their rigid adherence to an irrational, unscientific approach to disease causation."

(Continued from Page 86)

phalanx of the right index finger for the past four days. The day before she was seen, she noted a painful red streak extending up the flexor surface of the forearm. Physical examination disclosed swelling of the soft tissue of the distal phalanx of the right index finger, a red linear streak on the forearm and several small vesicles filled with cloudy fluid on the skin of the involved part of the finger. The affected area of the finger was very tender to palpation. Her temperature was 38.1 C (100.6 F). Hematologic studies were within normal limits.

The most likely diagnosis is

(a) streptococcal cellulitis lymphangitis

(b) osteomyelitis of the terminal phalanx

(c) erysipelas

(d) herpes whitlow

(e) herpes zoster

10. Which of the following antibiotics is most likely to be active against methicillin-resistant strains of Staphylococcus aureus?

(a) Cephalothin (Keflin)

(b) Nafcillin (Unipen)

(c) Oxacillin (Prostaphlin)

(d) Vancomycin (Vancocin)

(e) Ampicillin

CORRECT ANSWERS

1-D; 2-A; 3-B; 4-C; 5-C; 6-D; 7-A; 8-C; 9-D; 10-D.

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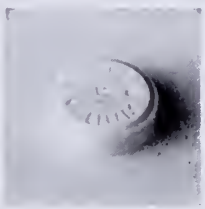
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Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.

For further information on this subject, the following references are provided:

1. Henry BW, *et al: Dis Nerv Syst 30*:675-679, Oct 1969.
2. Hollister LE, *et al: Arch Gen Psychiatry 24*:273-278, Mar 1971.
3. Claghorn J: *Psychosomatics 11*:438-441, Sept-Oct 1970.



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THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA · 1873 ·

PRESIDENT'S PAGE

J. GARBER GALBRAITH, M.D., PRESIDENT



Alabama Medical Review Needs Your Participation

No issue in recent memory has evoked more mixed responses from the medical profession than has PSRO. There is widespread concern that this is bad legislation and should be repealed. At this moment repeal does not appear likely, so one must consider the alternatives.

To do nothing is to invite bureaucratic implementation and this is clearly not acceptable. The AMA has taken a definitive stand calling for development of appropriate regulations and constructive amendments to the law. To this end, Alabama Medical Review, Inc. has entered into a PSRO contract with HEW calling for production of specific articles and other planning services within a six month period.

Currently there is no commitment beyond this planning process. However, the AMA recommends that should individual state associations elect non-participation in PSRO they should develop effective non-PSRO review programs which embody the principles of proper peer review.

We should all agree that peer review is a proper procedure to achieve quality assurance for medical care. To this extent the basic concept of PSRO is acceptable. However, PSRO has not yet been proven to be the proper vehicle for the development and utilization of the peer review process. Grave concern has been expressed regarding "due process guarantees" under PSRO. These include confidentiality, security, provision for modification of change and informed consent for use. Such safeguards are certainly needed if this law is to function properly.

At the direction of The Board of Censors our representatives in Congress have been advised that repeal of PSRO is desirable, even though we are reluctantly complying thus far. Every physician in Alabama should let his views be known through active participation in Alabama Medical Review, Inc.

Recertification is another major issue facing us at present. All Specialty Boards are now developing means for achieving this objective. The American Board of Family Practice achieves this by credits for continuing medical education participation. The Physicians' Recognition Award of the AMA is similarly accomplished. The American Board of Internal Medicine plans a written comprehensive examination late this year for voluntary recertification of those certified more than 6 years ago. A further means of assessing one's continuing competence for purposes of recertification is by assessment of performance. This is perhaps more relevant than any other method, and would be facilitated by an on-going peer-review audit system.

At the 1974 Annual Session, our Association voted to accept continuing medical education as a requirement for maintaining membership in The Association. One year was allotted for study to determine the means by which this is to be accomplished, and the effective date for its implementation. All should give this matter serious consideration in preparation for further action by The House of Delegates and College of Counsellors at the 1975 meeting.

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WOMAN'S AUXILIARY

EVELYN O'BRIEN, PRESIDENT



Volunteers Plus Cooperation Equal Success

There is a wealth of volunteer potential in every county auxiliary. Many members are now giving much of their time, and giving it regularly, to already established volunteer activities. It would improve our public relations if we would work together on a health-related project that other groups are neglecting or overlooking.

The Family and Community Health Committees of the National Auxiliary view their program for 1974-75 as an opportunity to help auxiliaries identify health problems of either individual or community nature, to help identify existing health resources and to stimulate solutions of health problems through public education and volunteer services.

Unemployment, poverty, poor housing, environmental h a z a r d s, anxieties, accidents, poor nutrition, child abuse, alcoholism, excessive smoking and misuse of drugs are but a few of the causes of health-related problems. Yet all of these, and many others, are areas in which volunteers can help prevent, as well as alleviate, causes of disease and mental illness.

The health needs and resources of no two communities are identical. Therefore each auxiliary must first define its local situation. How do you identify unmet, or inadequately met, health needs in your state or county?

A survey is a useful tool. Conducting such a survey could be a worthwhile auxiliary project and the first step toward solution of a problem. At the very least, it could help assess the community resources available for health care, and, by keeping it up-to-date, it could provide a springboard for effective action for years to come. Perhaps, too, the data collected by such a survey could be compiled into a directory of health services which would be useful to other organizations and area residents as well.

In planning such a survey we would have to define our objectives. Some suggestions might be that we would want to know the existing community resources, or perhaps our objective would be to know and evaluate the needs and problems of various health services. Perhaps we would rather further the use of existing services or prefer to coordinate activities to promote cooperation not competition.

We should then concern ourselves with procedure. The first step might be listing programs and activities of health resources in the community. For each agency or service a determination could be made of the sources of finances, the principal interest or responsibility, list of activities, the efficiency of the personnel and usefulness of the agency, and the segment of the population served. It would be important to determine the mini-

PRESIDENT—Mrs. Donald J. O'Brien/PRESIDENT-ELECT—Mrs. William Hughes/FIRST VICE-PRESIDENT—Mrs. J. E. Dunn, Jr./NORTHWEST DISTRICT VICE-PRESIDENT—Mrs. Charles Howell/NORTHEAST DISTRICT VICE-PRESIDENT—Mrs. Roland Murphree/SOUTHWEST DISTRICT VICE-PRESIDENT—Mrs. Charles Weaver/SOUTHEAST DISTRICT VICE-PRESIDENT—Mrs. Robert Foy/WAMASA EDITOR—Mrs. William L. Smith.

mum standards of such activities and these are formulated by the AMA and the American Public Health Association. A comparison of results would ascertain unmet needs.

Our sources for information could be the state and county medical association, the state and county health department, the community council, the Regional Health Planning Council, Safety Council, law enforcement agencies or courts.

I would like to urge each county auxiliary to consult with its medical society for their encouragement and approval to survey their communities with the hope that they will find un-met health-related needs where they could volunteer their efforts.

At the State Auxiliary's Fall Executive Board Meeting and Workshop which will be held September 24th and 25th at the Kahler Plaza in Birmingham we hope to have the National Community Health Chairman of the Woman's Auxiliary to the AMA. We look forward to her help in finding ways to serve our communities in health-related services.

Grant Awarded to UAB For Cancer Center

A $1,214,380 grant has been awarded to the Comprehensive Cancer Center at The University of Alabama in Birmingham (UAB) to strengthen the Cancer Center's role in reaching out to help the people and physicians of Alabama.

Dr. John R. Durant, director of the UAB Cancer Center, said the grant, awarded by the national Cancer Institute, will provide funds for the support of training nurse clinicians in gynecology, and for the establishment of special clinics to evaluate abnormal Pap smears. The grant will be funded over a three-year period.

He said finances also will be available for a traveling radiation therapy treatment planning service, and for support of the Medical Information Service via Telephone (MIST) consultant service.

"Some of the funds will be used for the development of means to evaluate the effectiveness of the program itself," Dr. Durant said.

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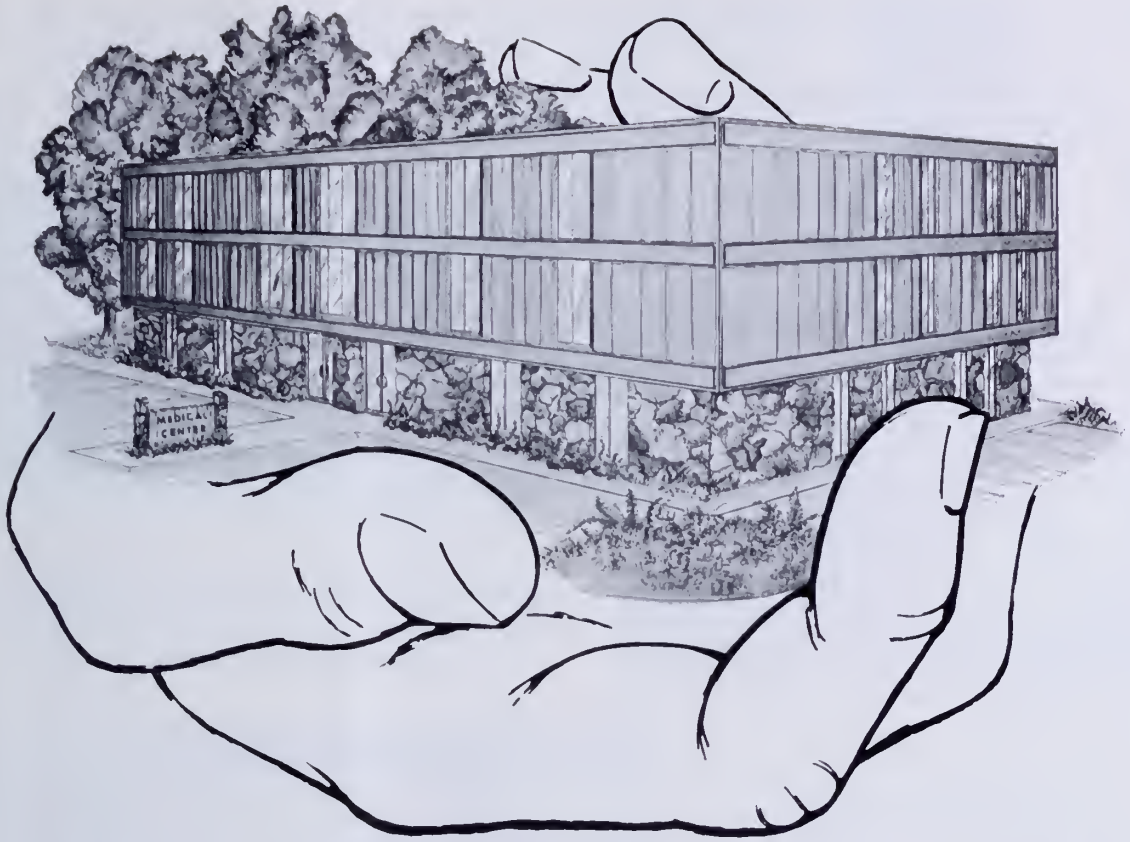
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CONTINUING MEDICAL EDUCATION

by Larry Dixon

In compliance with the House of Delegate's directions for the Education Department to circulate the continuing medical education requirements, the following breakdown of category credits, what they are and where to find them was developed. Dr. E. Vernon Stabler, President-Elect, Greenville, has assisted in the development of this sample outline in an effort to insure that every MASA member understands what his society expects of him.

Periodic reprints of the sample submitted below will appear in the *JOURNAL* as well as the *ALABAMA M.D.* Any questions should be directed to the MASA Education Department.

A SAMPLE OUTLINE EXPLAINING HOW TO MEET THE CONTINUING MEDICAL EDUCATION REQUIREMENTS FOR MEMBERSHIP IN MASA AND THE AMA'S PHYSICIAN'S RECOGNITION AWARD.

A SIMPLE REPORT FORM HAS BEEN DEVELOPED & WILL BE DISTRIBUTED AT THE APPROPRIATE TIME BY THE MEDICAL EDUCATION COMMITTEE.

ONE HUNDRED AND FIFTY HOURS MUST BE EARNED IN THE FOLLOWING CATEGORIES EVERY THREE YEARS.

EDUCATIONAL CATEGORIES

CATEGORY CREDIT HOUR LIMIT

1. C. M. E. Activities with Accredited Sponsorship (60 Hours Required)—No Limit.

2. C. M. E. Activities with Non-Accredited Sponsorship—45 Hours.

3. Medical Teaching—45 Hours

4. Papers, Publications, Books, and Exhibits—40 Hours

5. Non-supervised individual C. M. E.—45 Hours (22 Credit hour limit per sub-category)

6. Other Meritorious Learning Experiences—45 Hours

Credit in all categories is on an hour-for-hour basis except Category 4. Examples of how to record each category of credit are over-printed in color on the report form.

CATEGORY 1: C. M. E. ACTIVITIES WITH ACCREDITED SPONSORSHIP

"At least 60 credit hours in this category are required for the Award. The total 150 credit hours may be earned here."

Education activities sponsored by an accredited organization should be claimed in this category. An accredited organization is one which has been accredited by the AMA Council on Medical Education or by a State Medical Association whose accreditation program is approved by the AMA.

Examples of where to find Category I credit—

—Category I credit will be noted in the "Calendar of Events" in the *ALABAMA M. D.*

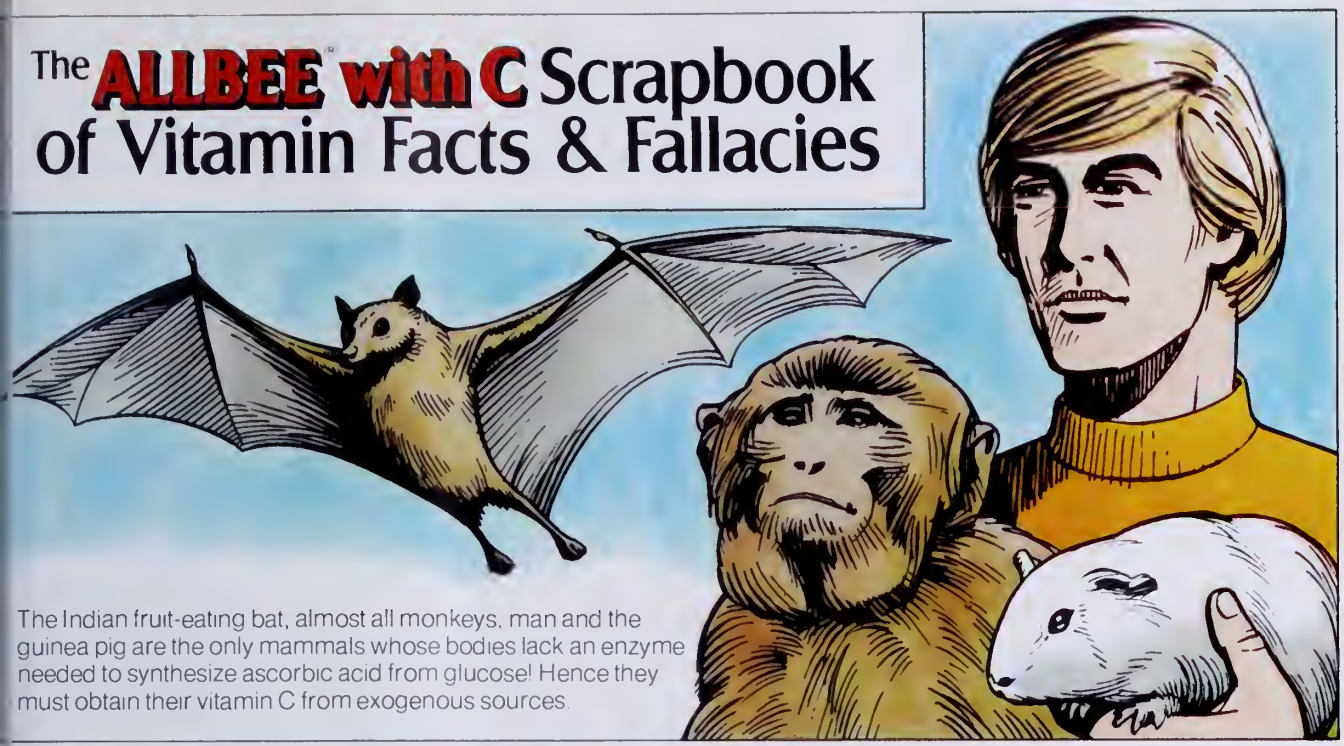
—Continuing Medical Education Courses for Physicians—Nationwide.

Dates: Yearly Basis—Allows you to plan your cme for the entire year.
Listed in: *August* supplement to *THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.*

—Information on Courses produced by the UAB School of Medicine can be obtained

(Continued on Page 109)

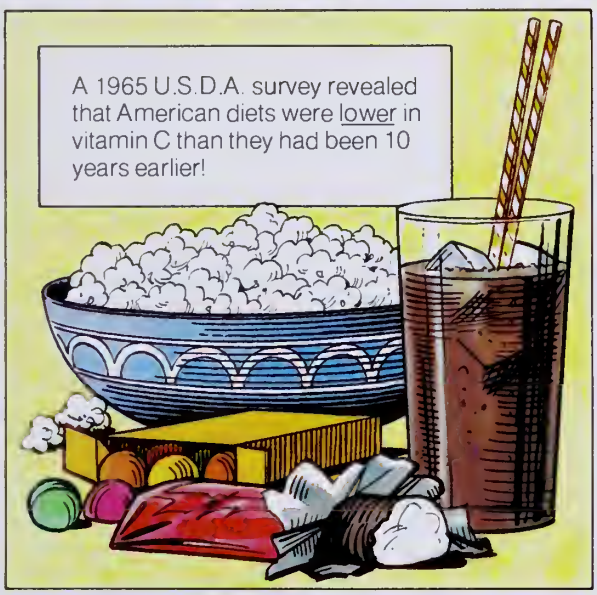
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The Indian fruit-eating bat, almost all monkeys, man and the guinea pig are the only mammals whose bodies lack an enzyme needed to synthesize ascorbic acid from glucose! Hence they must obtain their vitamin C from exogenous sources.



De Joinville writing about a 13th century crusade reported that barber surgeons had to "cut away the dead flesh from the gums to enable people to masticate their food." The disease he described was probably scurvy.



A 1965 U.S.D.A. survey revealed that American diets were lower in vitamin C than they had been 10 years earlier!



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phenobarbital (warning: may be habit forming)	(¼ gr.) 16.2 mg.	(½ gr.) 32.4 mg.	(¾ gr.) 48.6 mg.

Brief summary. Adverse Reactions: Blurring of vision, dry mouth, difficult urination, and flushing or dryness of the skin may occur at higher dosage levels, rarely on usual dosage. Contraindications: Glaucoma, renal or hepatic disease, obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy), or hypersensitivity to any of the ingredients.

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(Continued from Page 106)

by contacting Margaret S. Klapper, M. D., Division of Continuing Medical Education, UAB/Birmingham, University Station, 35294. Course information can be obtained months in advance.
—Southern Medical Associations

CATEGORY 2: C. M. E. ACTIVITIES WITH NON-ACCREDITED SPONSORSHIP

"There is a limit of 45 credit hours for this Category."

Credit in this category may be claimed for continuing medical education activities sponsored by a medical organization or institution that is not a cme accredited organization. Scientific medical meetings and other continuing medical education programs not falling within the definition of Category 1 are creditable in Category 2.

—Examples—

—CME produced by unaccredited hospitals—CPC's, etc.

—Unaccredited State Specialty society meetings.

—MASA's Annual Session (April, 1974 Session was worth 9 hours credit)

CATEGORY 3: MEDICAL TEACHING

"There is a limit of 45 credit hours for this category."

Credit may be claimed for student-contact teaching of medical students, physicians, and allied health professional personnel.

CATEGORY 4: PAPERS, PUBLICATIONS, BOOKS, PRESENTATIONS, AND EXHIBITS

"There is a limit of 40 credit hours for this category."

Ten credit hours may be claimed for a scientific paper, publication or for each chapter of a book that is authored. A paper must be published in a recognized medical journal. A presentation must be made or an exhibit shown to a professional audience and can include audiences made up of allied health professionals.

—Any medical presentation to a health-profession organization, staff meeting, etc.

CATEGORY 5: NON-SUPERVISED INDIVIDUAL CONTINUING MEDICAL EDUCATION ACTIVITIES

"There is a limit of 45 credit hours for this category."

Credit may be claimed in this category for continuing medical education activities that are not or cannot be personally supervised. *Within this category, not more than 22 credit hours may be claimed in any one of the five sub-categories A through E.*

A. Self Learning: Activities such as reading Journals, listening to audio-tapes, viewing movies, etc.

B. Consultation: Organized review of medical knowledge relating to a particular case.
—No more than two hours per case.

C. Patient Care Review:
—Peer Review, Medical Audits, consecutive case conferences, chart audits, participation in PSRO activities.

D. Self Assessment:
—ACP Self Assessment course, others such as the Medical Quiz in the CME column of the MASA *JOURNAL.*

E. Specialty Board Preparation:

CATEGORY 6: OTHER MERITORIOUS LEARNING EXPERIENCES

"There is a limit of 45 credit hours in this category."

Category 6 includes any meritorious continuing medical education experiences that cannot be easily included in Categories 1 through 5.

Sufficient information about what, how and when it was done, how it was evaluated and who supervised it should be included in a letter attached to the report form. A decision concerning the proper number of credit hours for the activity can then be made.

The Upper Functional G.I. Disorder

The Pseudo-ulcer

Ulcer-like symptoms: no G.I. pathology



X-ray demonstrates normal stomach.

The patient is convinced he has an ulcer. However, symptoms are not quite typical, and x-ray findings are negative. These findings and the results of additional diagnostic procedures exclude an organic basis for the patient's complaints. A diagnosis of "upper functional gastrointestinal disorder" is made, which is supported by the fact that episodes of painful symptoms coincide with episodes of excessive anxiety, as indicated by the history.

It may be useful to explain to the patient the mechanism by which emotions upset normal G.I. functioning, resulting in hypersecretion and hypermotility and thus causing such symptoms as nausea and epigastric pain. In upper functional gastrointestinal disorders, counseling by the primary physician can often help the patient understand how excessive anxiety may cause flare-ups of G.I. symptoms.

A disproportionate number of patients seen by the general practitioner suffer from functional disorders, as do more than half of those seen by the gastroenterologist.* Where milder cases may respond to counseling alone, if symptoms are severe and disabling to any degree, a suitable regimen may include medication to reduce the symptoms and the excessive anxiety that often provokes these distressing symptoms.

In these cases, Librax as an adjunct can greatly contribute to the course of therapy. Its dual action can offer relief of both painful symptoms and excessive anxiety, because each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br. The antianxiety action of Librium® (chlordiazepoxide HCl) makes Librax exceptional among drugs for certain gastrointestinal disorders associated with excessive anxiety; the clidinium bromide (Quarzan™) component furnishes dependable antisecretory-antispasmodic action. Dosage is flexible; it may be adjusted according to your patient's requirements within the range of 1 or 2 capsules three or four times daily, up to 8 capsules daily in divided doses. Please consult the complete product information regarding precautions and adverse reactions.

*Rome HP, Brannick TL: Orientation and mechanism of functional disorders; clinicophysiologic correlation, chap. 133, in *Gastroenterology*, edited by Bockus HL. Philadelphia, W.B. Saunders Company, 1965, p. 1116.

An adjunct in anxiety-related upper functional G.I. disorders

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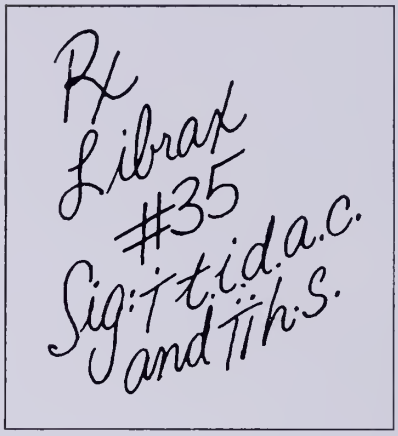
ROCHE

Please see summary of product information on following page.

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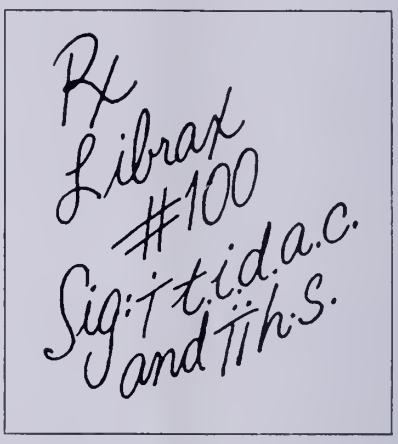
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Initial therapy

The initial prescription allows evaluation of patient response to therapy.



Follow-up therapy

Follow-up therapy with a prescription for 2 to 3 weeks' medication usually helps maintain patient gains.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Symptomatic relief of hypersecretion, hypermotility and anxiety and tension states associated with organic or functional gastrointestinal disorders; and as adjunctive therapy in the management of peptic ulcer, gastritis, duodenitis, irritable bowel syndrome, spastic colitis, and mild ulcerative colitis.

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anti coagulants; causal relationship has not been established clinica

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsines ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and consti pation, extrapyramidal symptoms, increased and decreased lib —all infrequent and generally controlled with dosage reduction changes in EEG patterns (low-voltage fast activity) may appe during and after treatment; blood dyscrasias (including agranu cytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of mouth, blurrin of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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Sudduth, William Douglas, b 42, mc Alabama 68, sb 69, 1013 Felix Rd., Selma, Alabama 36701. Or.

Elmore County

Masters, Charles James, b 34, mc Alabama 67, sb 68, Rt. 5, Box 361, Wetumpka, Alabama 36092. R.

Tuscaloosa County

Konigsberg, Charles, Jr., b 40, mc Tenn. 65, recip. Tenn. 73, P. O. Box 1310, Tuscaloosa, Alabama 35401. Public Health.

MEMBERS DECEASED

Jefferson County

Hughes, Brady Alexander, Birmingham, Alabama, Deceased 4/18/74

McLean, Claude Cooper, Birmingham, Alabama, Deceased 11/7/73

Speir, Ross C., Sr., Birmingham, Alabama, Deceased 12/21/73

Mobile County

Donald, James Glenn, Mobile, Alabama, Deceased 7/15/74

CHANGES OF ADDRESS

Chambers County

Crowder, Jackson G., West Point, Ga., to Suite 204, Physician Building, Columbus, Ga. 31901.

Dallas County

Phillips, Gary E., Tuscaloosa, to 750 Washington Avenue, Suite 310, Montgomery, Alabama 36104.

Elmore County

Dunn, Julius E., Sr., present Wetumpka to Rt. 2, Box 4, Wetumpka, Alabama 36092.

Dunn, Julius E., Jr., present Wetumpka to Rt. 2, Box 4, Wetumpka, Alabama 36092.

Hughes, Andrew J., Tallassee, Alabama, to 3156 Clairmont Avenue, Macon, Georgia 31204.

Escambia County

Vanlandingham, John A., Brewton, to Rt. F, Box 344, Evergreen, Alabama 36401.

Houston County

Pruitt, Elihu Posey, III, present Dothan to 1015 Honeysuckle Rd., Dothan, Alabama 36301.

Jefferson County

Bonner, Mack S., Birmingham, to 2325 Wentworth Drive, Montgomery, Alabama 36106.

Crawford, Willis V., Vestavia Hills, to 404 Wilson Drive, Troy, Alabama 36081.

Detko, George J., Jr., Birmingham, to 1121 Judan St., San Francisco, California 94101.

Gurley, Jerry N., Fairfield, to Medical Office Park, P. O. Box 76, Talladega, Alabama 35160.

Jackson, David H., Birmingham, to 705 Memorial Drive, Bessemer, Alabama 35020.

Perry, Ezra B., present Birmingham to 1008 South 17th St., Birmingham, Alabama 35205.

(Continued on Page 138)

Statistics Reveal Drop In Patient Numbers In Mental Hospitals

The number of patients in State and county mental hospitals dropped 9 per cent in the United States last year, according to the National Institute of Mental Health of HEW's Alcohol, Drug Abuse, and Mental Health Administration.

At the end of July 1973 there were 248,562 patients in these hospitals, a drop of 26,275 since July 1972. It was the 18th consecutive year a reduction took place.

The decrease in patient population of State and county mental hospitals was posted in all but nine States, and in 23 States a decline of 10 per cent or more was reported for fiscal 1973.

Such reductions are made possible in part because more community-based treatment facilities are available, such as community mental health centers and alternate care facilities for the elderly. Other contributing factors include the introduction of more effective screening procedures to prevent inappropriate admissions.

"The reduction in the number of patients requiring hospitalization in mental hospitals highlights the need for alternate care facilities in our communities," Dr. Bertram S. Brown, Director of NIMH, pointed out. "As States work toward development of improved community care services, we can expect the downward trend in hospitalization to continue and even accelerate."

The NIMH survey also notes that in the two most recent years reductions occurred in both the number of admissions and the number of patients released from State and county mental hospitals. Deaths in State and county mental hospitals declined 14.5 per cent during the same period to a new low of 76 per 1,000 patients.

PRESCRIBING INFORMATION
Antiminth (pyrantel pamoate) Oral Suspension
Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13μg/ml.) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with pre-existing liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

Dosage and Administration. *Children and Adults:* Antiminth Oral Suspension (50 mg. of pyrantel base/ml.) should be administered in a single dose of 11 mg. of pyrantel base per kg. of body weight (or 5 mg./lb.); maximum total dose 1 grain. This corresponds to a simplified dosage regimen of 1 cc. of Antiminth per 10 lb. of body weight. (One teaspoonful = 5 cc.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

How Supplied. Antiminth is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg. pyrantel base per ml., supplied in 60 cc. bottles and Unitcups™ of 5 cc. in packages of 12.

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WORMS BLITZED



A single dose of Antiminth (1 cc. per 10 lbs. of body weight, 1 tsp./50 lbs.—maximum dose, 4 tsp.=20 cc.) offers highly effective control of *both* pinworms and roundworms.

Antiminth has been shown to be extremely well tolerated by children and adults alike in clinical studies.* Pleasantly caramel-flavored, it is non-staining to teeth and oral mucosa on ingestion... doesn't stain stools, linen or clothing.

One prescription can economically treat the entire family.

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ANTIMINTH®
(pyrantel pamoate)

equivalent to 50 mg. pyrantel/ml.

ORAL SUSPENSION

*Data on file at Roerig.

Please see prescribing information on facing page.



Physician Action Needed Before Emergency Arises

Alan R. Dimick, M.D.
Birmingham, Alabama

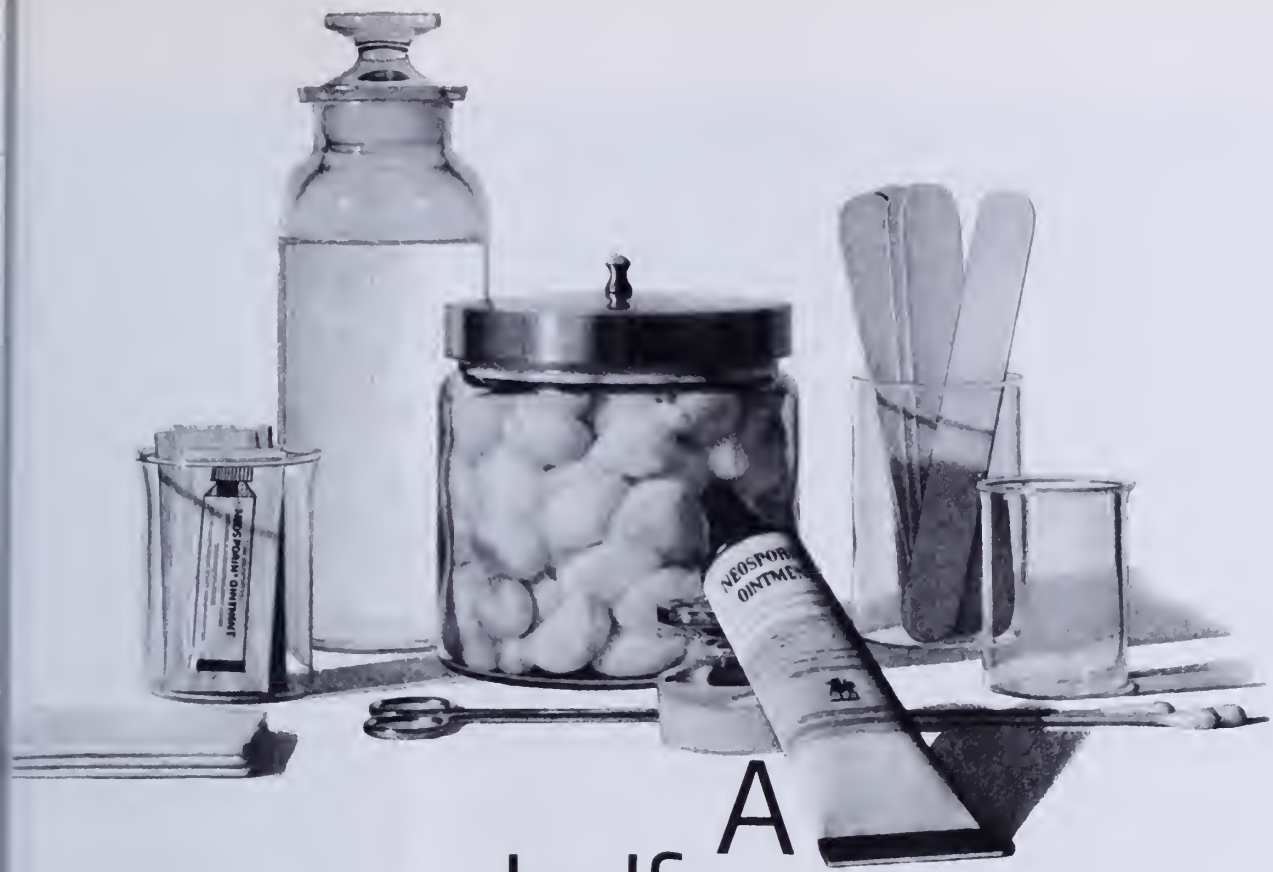
The transportation and emergency care of the acutely ill and injured is an important part of our health services. With our high speed highways and the increase in all types of travel, the ambulance and rescue services around the country find themselves being used more than ever before. It is estimated that there are 44,000 ambulances in the United States or one vehicle for each 5,000 citizens. There are approximately seven million, five hundred thousand ambulance calls per year, or two calls in the lifetime of every individual. In a year approximately thirty-one million people receive some type of first aid. Annually about 700,000 medical and surgical emergencies occur in the United States which result in death for the victims. It is estimated that it cost each U. S. citizen approximately $60.00 during his lifetime for emergency transportation under our present arrangement of paid and volunteer services.

Unfortunately the development of rescue and ambulance groups has been haphazard, casual, and all too often without planning. The use of the funeral coach in the past as the vehicle for transportation of the injured is well known. The National Research Council has pointed out that most U. S. ambulances are unsuited to meet the demands of emergency care, and that many ambulances are incompletely equipped and are manned by untrained attendants. Hearses or station wagons are commonly used.

The past is unimportant. The future is everything, and of the greatest importance will be our philosophy concerning emergency medical care. No longer can we consider the ambulance as separate from the emergency service of the hospital. The ambulance or transportation service should be viewed as a part of the emergency service of the hospital - pseudopod of the hospital which should reach out carefully and gently to draw the ill or injured person into the hospital for final and complete care. This concept implies that the emergency service of our hospitals must take responsibility for transportation of the acutely ill or injured. Ambulance personnel should be trained and integrated into the emergency service of the hospital. No longer do the ambulances give only Band-aid type of treatment, but rather total emergency medical care supplied by Emergency Medical Technicians (EMT's), *not* ambulance drivers.

The future requires total integration of ambulance services and hospital emergency services. Therefore, a first-class emergency service must include: (1) vehicles of a design that provide adequate space for equipment, the patient and EMT's; (2) proper equipment for all life-threatening emergencies; (3) properly trained EMT's; (4) properly staffed emergency departments to receive the patient; (5) central area dispatch and two-way radio communication between ambulance and emergency departments; (6) an adequate reporting system; (7) development of emergency medical technician training programs, probably in community colleges in cooperation with hospitals so that

(Continued on Page 148)



A half-ounce of prevention

Use it to prevent a topical infection. Or to treat one that's already started. In either case, it's good medicine. Whether for lacerations, burns, open wounds, IV catheter or surgical aftercare. Neosporin® Ointment provides broad antibacterial coverage against common susceptible pathogens. And since it contains three antibiotics that are rarely used systemically, the risk of sensitization is reduced. Neosporin Ointment. A half-ounce of prevention. Also available in a full ounce of prevention and in convenient foil packets.

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ICATIONS: *Therapeutically,* used as an adjunct to appropriate systemic rapy for topical infections, primary or secondary, due to susceptible organ- s, as in: • infected burns, skin grafts, surgical incisions, otitis externa rimary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia) • second- rily infected dermatoses (eczema, herpes, and seborrheic dermatitis) raumatic lesions, inflamed or suppurating as a result of bacterial infection. *Prophylactically,* the ointment may be used to prevent bacterial contamination burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts l wounds accidentally incurred, its use may prevent the development of ection and permit wound healing.

NTRAINDICATIONS: Not for use in the eyes or external ear canal if the eardrum perforated. This product is contraindicated in those individuals who have wn hypersensitivity to any of the components.

RNING: Because of the potential hazard of nephrotoxicity and ototoxicity e to neomycin, care should be exercised when using this product in treating tensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

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* **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indication as follows:

"Possibly" effective: for symptomatic relief in conditions characterized by skeletal muscle spasm and mild to moderate pain.

Final classification of this indication requires further investigation.

Contraindications: Acute intermittent porphyria and allergic or idiosyncratic reactions to carisoprodol or related compounds such as meprobamate, mebutamate, tybamate.

Warnings: *Idiosyncratic Reactions:* Rarely, first dose has been followed by extreme weakness, transient quadriplegia, dizziness, ataxia, temporary vision loss, diplopia, mydriasis, dysarthria, agitation, euphoria, confusion, disorientation. Symptoms usually subside during the next several hours. Supportive and symptomatic therapy, including hospitalization, may be necessary.

Pregnancy and Lactation: Safe use not established; weigh potential benefits against potential hazards in pregnancy, nursing mothers, or women of childbearing potential.

Children Under Five: Drug not recommended.

Potentially Hazardous Tasks: Driving a motor vehicle or operating machinery.

Additive Effects: Possible additive effects between carisoprodol, alcohol, and other CNS depressants or psychotropic drugs.

Drug Dependence: Use cautiously in addiction-prone patients.

Precautions: To avoid excess accumulation, use caution in patients with compromised liver or kidney function.

Adverse Reactions: *Central Nervous System:* Drowsiness, dizziness, vertigo, ataxia, tremor, agitation, irritability, headache, depressive reactions, syncope, insomnia.

Allergic or Idiosyncratic: Usually seen after 1-4 doses in patient not previously exposed, e.g., rash, erythema multiforme, pruritus, eosinophilia, fixed drug eruption with cross reaction to meprobamate. More severe manifestations: asthma, fever, weakness, dizziness, angioneurotic edema, smarting eyes, hypotension, anaphylactoid shock. Stop drug, treat symptomatically (e.g., possible use of epinephrine, antihistamines, and in severe cases corticosteroids).

Cardiovascular: Tachycardia, postural hypotension, facial flushing.

Gastrointestinal: Nausea, vomiting, hiccup, epigastric distress.

Hematologic: Leukopenia and pancytopenia (on carisoprodol plus other drugs).

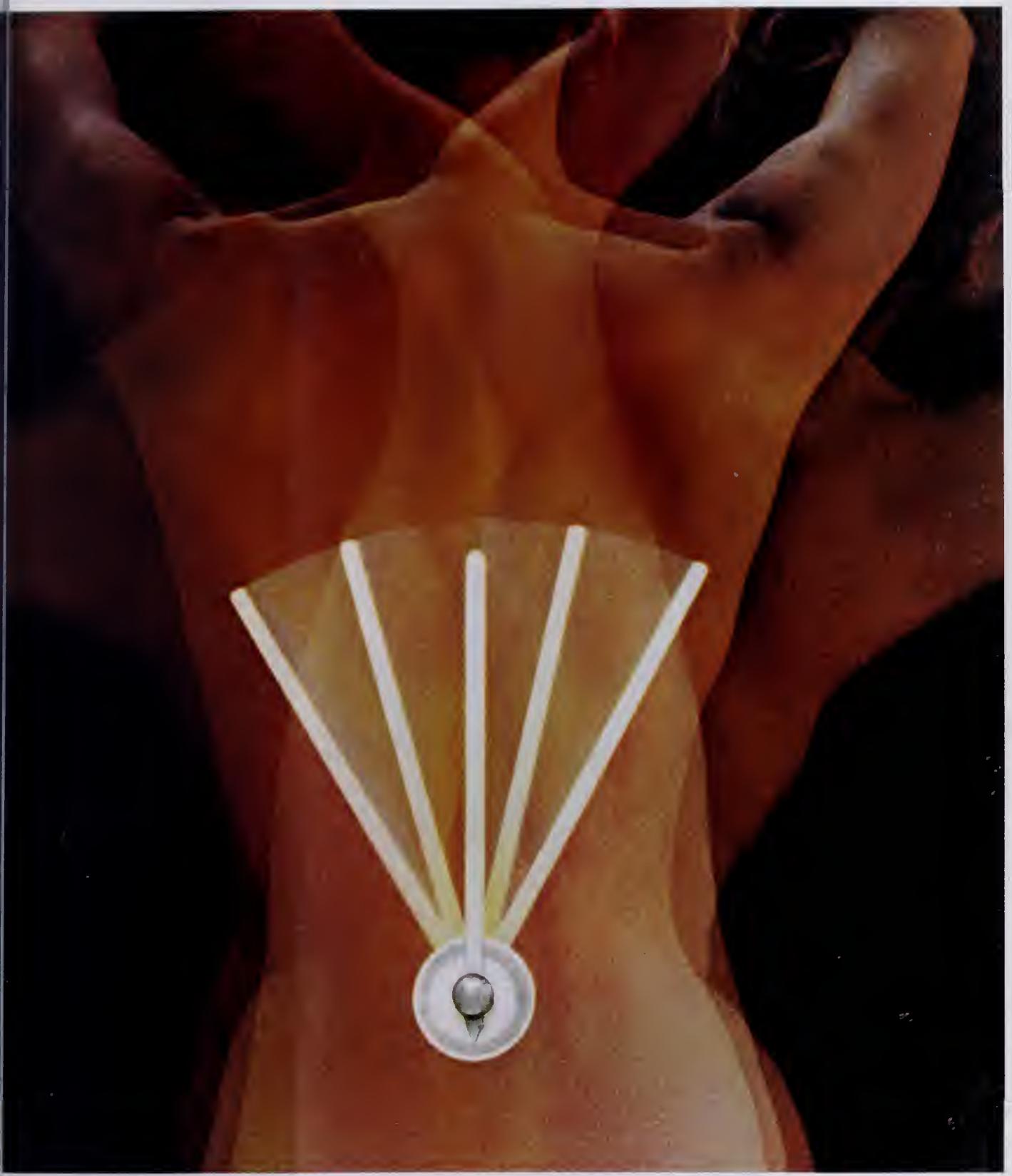
Usual Adult Dosage: One 350 mg tablet three times daily and at bedtime.

Overdosage: Has produced stupor, coma, shock, respiratory depression, and, very rarely, death. Overdosage of carisoprodol plus alcohol or other CNS depressants or psychotropic drugs can be additive. Empty stomach, treat symptomatically; cautiously give respiratory assistance, CNS stimulants, pressor agents as needed. Carisoprodol is metabolized in the liver and excreted by the kidney. Diuresis and dialysis have been used successfully with related drug meprobamate. Carefully monitor urinary output; avoid overhydration; observe for possible relapse due to incomplete gastric emptying and delayed absorption.

Before prescribing, consult package circular or latest PDR information. Rev 5/72

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Hematologic Complications Of Inflammatory Bowel Disease

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The purpose of this review is to discuss the hematological sequelae of ulcerative colitis and Crohn's disease. The primary hematological sequelae of both disorders is anemia. However, the hematological picture may be diverse with lymphocytopenia, neutrophilia, monocytosis, thrombocytosis, protein abnormalities and coagulation disorders occurring.

ULCERATIVE COLITIS

Anemia is commonplace in ulcerative colitis. Approximately 60 per cent of patients in the eight large series noted in Table I had hemoglobin levels below 12 grams/100 ml, and 25 per cent had levels below 9 grams. As might be expected, the severity of the anemia was greater in females than males and correlates with the extent of colonic involvement. However, no apparent correlation exists between the degree of anemia and the duration of the inflammatory process[1-8].

BLOOD LOSS

Iron deficiency anemia, secondary to chronic blood loss, is the most common form of anemia [9], [10], [11]. While this is an obvious complication of active disease, many physicians are unaware that gastrointestinal blood loss occurs repeatedly in patients with quiescent disease. Studies with autologously labelled Chromium^{51} red blood cells have shown a daily fecal blood loss ranging from 6 to 25 ml (mean 12 ml) in patients with quiescent disease and from 1 to 89 ml (mean 41 ml) in patients with active disease. (Table II). Radioactive studies have also shown that fecal blood loss in excess of 200 ml per week correlates well with the presence of mucosal hemorrhage on sigmoidoscopic examination[12].

Eventually, chronic fecal blood loss depletes iron stores and results in a fall in the serum iron level in the presence of a normal iron binding capacity and a rapid plasma

clearance of intravenously administered radio-iron in association with rapid incorporation of labelled iron into red blood cells. Iron depletion also leads to a shortened erythrocyte survival. Occasionally, the iron deficiency is so severe, it leads to the development of sideropenic dysphagia and post-cricoid esophageal webs[13].

The striking mucosal damage in active ulcerative colitis alters the vascular architecture and leads to chronic blood loss. Figure I illustrates the normal vascular pattern of the colonic mucosa. Each crypt of Lieberkahn is surrounded by a capillary hexagon. The arms of these hexagons interdigitate so that each crypt receives part of its blood supply from several rings. In ulcerative colitis, the capillary bed is severely damaged with frequent breaks in the capillary hexagons and often loss of the crypt blood supply due to destruction of the mucosal capillary network (Figure 2a)[14]. From these illustrations, it is easy to imagine both crypt ischemia and capillary blood loss from broken capillary arms of the supporting arterioles. Chronic blood loss may also develop secondary to hemorrhoids which are present in about one-fifth of colitis patients.

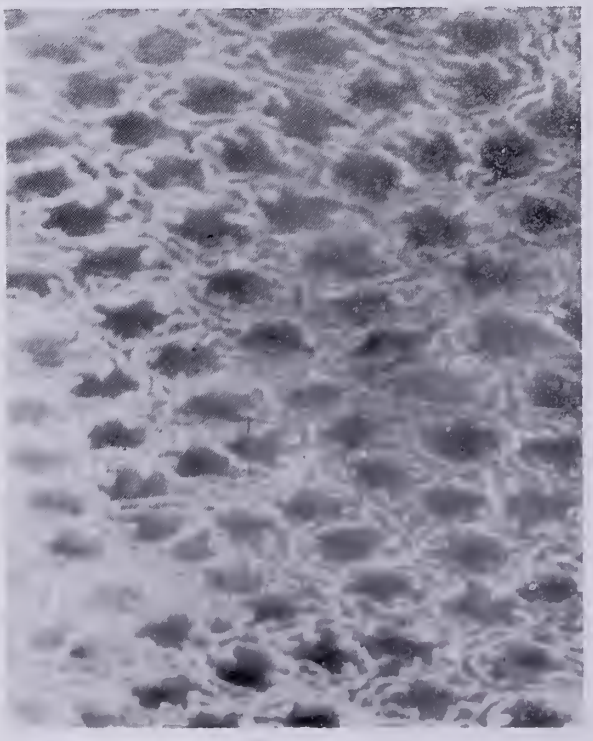


Figure 1

The normal vascular pattern of the colon (magnification X 30). Multiple capillary channels form vascular rings about the luminal openings of the colonic glands in this silicone-rubber perforation. This capillary plexus extends through the depth of the mucosa surrounding the glands.

Massive hemorrhage occurs in 1-3 per cent of patients with chronic colitis. It is more frequent with fulminating disease and occurs in about 10 per cent of patients with toxic megacolon[7,8,15,16].

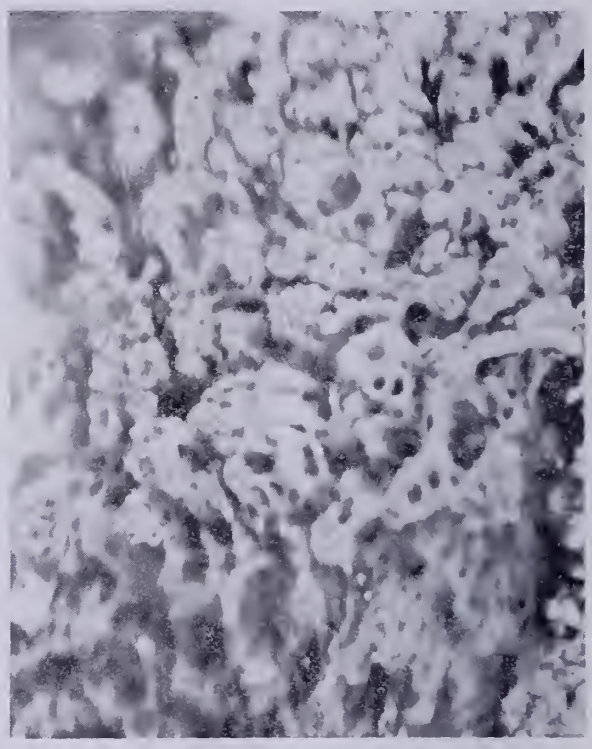


Figure 2

This surface photo of a pseudopolyp (25x) shows the mucosa to be divided vertically into small islands by vascular free areas. Presumably, the large holes in the vascular bed represent debris and mucosal sloughs. To a degree the vascular islands retain normal vascular symmetry about the luminal openings. Higher magnification often reveals breaks in the capillary rings and open-ended vessels.

HEMOLYSIS

Four types of hemolytic anemia in ulcerative colitis have been described:

1) Heinz-Erlich anemia
2) glucose 6-phosphate dehydrogenase deficiency
3) auto-immune hemolytic anemia
4) micro-angiopathic hemolytic anemia

Heinz-Erlich anemia was first described by Spriggs in 1958[17]. Subsequently, Edwards

and Truelove found this anemia in 7 of 127 patients treated with salicylazosulfapyridine (Azulfidine ®), and attributed the hemolysis to the drug. Later, Bottinger et al found *Heinz-Erlich bodies* in 6 of 72 patients treated with Azulfidine® but none had hemolytic anemia and the observed inclusion bodies were considered the result of red cell injury[18].

Patients with glucose 6-phosphate dehydrogenase deficiency are prone to develop hemolysis secondary to infections, metabolic disturbances, hepatitis, or drugs. Sulfonamides and Azulfidine® are the two drugs most commonly held responsible for hemolysis in ulcerative colitis[19].

Only 18 patients with Coombs positive auto-immune hemolytic anemia and ulcerative colitis have been described[20-24]. Among the clinical and laboratory features observed in this group were: a predominence of females; an onset 6 to 10 years after appearance of colitis; appearance of anemia during a severe recurrence of colitis or in association with complications, such as hepatitis, bacterial infection, thyroiditis, erythema nodosum, or colonic cancer[24]; prominent eosinophilia (41 per cent); decreased serum haptoglobin levels; and reticulocytosis. The occurrence of auto-immune hemolytic anemia in patients with elevated serum anticolon auto-antibodies led Lorber to postulate that auto-antibodies directed against the colonic mucosa might cross-react with erythrocytes and cause the hemolysis[20,25]. His suggestion stemmed from the observation that hemolysis was relieved by a colectomy in such a patient. Subsequently, several patients have been described with a similar anemia which developed post-colectomy. Also, Lorber's concept was further weakened by the discovery of colonic antibodies in the sera of normal individuals and by the demonstration that colonic auto-antibodies are distinct from erythrocyte antibodies[20,23,25]. Currently, the antibodies held responsible for auto-immune hemolytic anemia are thought to develop secondary to infections or other complications.

An even rarer anemia is Coomb's negative hemolytic anemia. This complication has been described in patients with biliary cirrhosis secondary to sclerosing cholangitis[25]. This anemia is more likely secondary to liver rather than bowel disease.

Microangiopathic hemolytic anemia has also been described in ulcerative colitis. Schistocytes, burr cells, poikilocytes, and spherocytes are present in the peripheral blood smear and there is a striking fall in the serum haptoglobin level[26].

MACROCYTIC ANEMIA

In contrast to regional enteritis, macrocytic anemia is seldom observed in ulcerative colitis. Edwards and Truelove described three cases of pernicious anemia among 624 patients with ulcerative colitis[7]. Malabsorption of Vitamin B-12 requires inflammatory involvement of at least 100 cm of the distal ileum and the "backwash" ileitis of ulcerative colitis seldom involves more than 25 cm of the ileum. Similarly, folic acid deficiency is a rarity, since the vitamin is absorbed in the proximal jejunum, a site seldom involved by ulcerative colitis.

THROMBOSIS

As illustrated in Table III, thromboembolism is a major hematological complication. Autopsy studies have shown significant deep vein thrombi in 6-39 per cent of colitis patients. Clinically, about 5 per cent of patients develop deep vein thrombosis during their first attack[7]. Females and medical patients develop this complication more often than males and surgical patients[27]. Toxemia, anemia, emaciation, surgical procedures, and prolonged bed rest favor thrombosis, but these factors alone are not solely responsible for the increased risk of thrombosis. In 1936, Bargen and Barker suggested hypercoagulability may be operative in these patients[28]. Since then, the plasma thromboplastin generation was found to be accelerated as a result of increased Factor VIII activity and fibrinogen levels increased in relationship to both the activity and the extent of disease[29].

Also, thrombocytosis is common, particularly during exacerbations when the platelet count may exceed one million per cubic mm. Since thrombocytosis can also impair thromboplastin generation in vitro, it may be linked to both hemorrhage and thrombosis. Additionally, a mild qualitative platelet Factor III defect has been described in some females with ulcerative colitis and this abnormality may increase the risk for thrombosis[30].

HEMOGRAM AND SERUM PROTEINS

Other hematological sequelae include: rouleaux formation, 67 per cent; hypochromasia, 58 per cent; toxic granulation of neutrophiles, 45 per cent; monocytes, 39 per cent; eosinophilia, 25 per cent; and thrombocytosis, 26 per cent[6]. Rouleaux formation is attributed to hyperglobulinemia but the cause of the eosinophilia is unknown[31]. Hypoalbuminemia due to intestinal protein loss is the most prominent serum protein abnormality[32]. It occurs in association with an increase in serum alpha-1 and alpha-2 globulin levels. Immunoglobulin IgA and IgM concentrations are also increased [32-35]. Both the synthetic and degradation rates of the immunoglobulins are significantly accelerated but little intestinal loss of globulin occurs[36],[37]. A rise in the alpha-2 globulin level during a clinical remission may herald the onset of a clinical relapse, while a low or falling gammaglobulin level is thought to be indicative of a poor immediate prognosis[33],[38].

REGIONAL ENTERITIS

The hematological complications of regional enteritis are similar to those of ulcerative colitis and include chronic blood loss, iron deficiency anemia, acute hemorrhage, the anemia of chronic infection and macrocytic anemias.

BLOOD LOSS

Again, the major cause of iron deficiency anemia is occult fecal blood loss. Hemoglobin levels below 11 grams per cent and serum iron levels below 50 mcg/100 ml are found in 20-65 per cent of patients with active disease[39],[40]. Usually, anemia is progressive and is more severe with protracted disease. It is not uncommon for patients to be treated for iron deficiency anemia before Crohn's disease is suspected.

HEMORRHAGE

The incidence of massive gastrointestinal hemorrhage ranges from 1-3.5 per cent. Crohn observed massive hemorrhage in 4.7 per cent of 542 patients; Van Patter reported it in 36 of 600 patients; Daffner and Brown observed it in 10 of 100 patients; and Sparberg and Kirsner reported an incidence of 3.5 per cent and 2 per cent respectively[41-44]. Hemorrhaging results from the deep mucosal ulcerations which sometimes involve large submucosal blood vessels.

In these patients, peptic ulcer disease is another cause of acute hemorrhage. Twenty of 25 patients in Crohn's series of patients and 11 per cent of Krause's 186 patients had an associated peptic ulcer as the source of the acute hemorrhage [39],[40].

CHRONIC INFECTION

Chronic infection contributes significantly to the incidence of anemia, particularly in patients with abscesses and/or fistula formation. Usually, this anemia is mild but occasionally may become severe. Early, it is normocytic and normochromic; later, with chronic or severe blood loss, it becomes hypochromic and microcytic. This complex anemia is characterized by impaired iron absorption and utilization, increased reticuloendothelial cell avidity for iron, decreased transferrin levels, impaired synthesis of hemoglobin from protoporphyrin and a failure to increase erythropoietin production. Erythrokinetic studies reveal a rapid plasma iron clearance rate, an increased plasma iron turnover rate, but normal erythrocyte uptake of radio-iron. Erythrocyte destruction is accelerated, but not enough to raise the serum bilirubin level or the fecal excretion of urobilinogen[15],[18]. Characteristically, the serum iron level and total iron binding ca-

pacity are decreased while plasma concentrations of free erythrocyte protoporphyrin and coproporphyrin are increased several fold.

MACROCYTOSIS

Megaloblastic anemia is relatively common. Expectedly, the anemia correlates with the extent and the site of bowel involvement or surgical resection. Folate deficiency may develop as a result of poor dietary intake, malabsorption and/or increased utilization. Inadequate dietary intake may occur secondary to an impaired appetite, or to fear that eating will precipitate diarrhea or abdominal pain. Malabsorption may result from inflammatory involvement of the proximal small bowel, the major site of absorption. Impaired folate absorption occurred in 19 of 22 patients studied by Chanarin and Bennett and in 6 of 28 patients observed by Cox et al[45,49-51]. Also, the augmented production and turnover of granulocytes, inflammatory cells, erythrocytes, and intestinal epithelium occurring in regional enteritis increases folate utilization and sometimes leads to rapid depletion of folate stores in the face of impaired absorption. More recently, folate absorption was found to be impaired by salicylazosulfapyridine in both regional enteritis and ulcerative colitis[52].

Vitamin B-12 deficiency occurs with extensive involvement of the distal ileum, after surgical resection of this area, or with the development of the blind-loop syndrome. Meynell found low serum B-12 levels in 26 of 43 patients[53,54]. As shown in Table IV, patients with extensive ileal involvement often have low serum B-12 levels, an abnormal Schilling test, and steatorrhea.

HEMOLYSIS

Hemolytic anemia may occur but appears less prevalent than in ulcerative colitis. The etiology of hemolysis in these patients is similar to that observed in those with ulcerative colitis. Formerly, a genetic link was postulated between regional enteritis and G-6-PD deficiency but this has not proven correct[55,56].

OTHER HEMATOLOGICAL CHANGES

Leukocytosis is common, particularly with superimposed infection. A marked rise also occurs in leukocyte alkaline phosphatase levels; this rise even occurs in the leukocytes of patients with granulocytic leukemia[57]. Thrombocytosis also occurs and is more prevalent than in ulcerative colitis[58].

TREATMENT

The principles of treating the hematological sequelae of both ulcerative colitis and Crohn's disease center primarily on the treatment of anemia[2,44]. Blood transfusions may be life-saving in those patients with massive hemorrhage. In patients with occult blood loss, iron therapy is required. Ferous sulphate 300 mgs., containing 180 mgs. of elemental iron, should be given three times a day. Parenteral iron should be used when patients are intolerant to oral iron, have malabsorption or are unreliable. Occasional complications of parenteral iron include abscesses at the site of injection and allergic reactions. When a deficiency has been demonstrated, folic acid should be administered in an oral dose of 1-2 mg. per day and parenteral vitamin B-12 should be administered in a monthly dose of 60-100 mcg.[59]. The use of prednisone is indicated for the presence of a Coomb's positive hemolytic anemia. After an initial dose of 60 mg. per day in an adult, the dose should be gradually reduced and maintained at 20 mgs. a day for 1-3 weeks or until there is a rise in the hemoglobin level. This daily dosage may be reduced by 5 mg. at monthly intervals after a patient has a hematologic remission. If a hematologic remission does not occur during a three week trial, then other means of therapy such as splenectomy are indicated. Therapeutic agents which are used for the treatment of the underlying inflammatory conditions such as Azulfidine®, sulfonamides, analgesics or antibiotics should also be considered as possible causes of hemolysis in patients with G-6-PD deficiency. Anticoagulant therapy is indicated in those patients with thromboembolic problems; however,

(Continued on Page 128)

TABLE 1

ANEMIA IN ULCERATIVE COLITIS

Year	Author	Number of Patients in Study	Male-Female		No. Pts. With Less Than 12 G/100 ML
1937	Garvin & Bargen	100			Avg. Hemoglobin = 11.1 g %
1947	Pollard et al	109			<12.5 g % = 71 pts.
1958	Hightower et al	220	106	114	<12.0 g % = 112 pts. <10.0 g % = 89 pts.
1960	Platt et al	62*	31	31	<12.0 g % = 50 pts. < 9.0 g % = 37 pts.
1962	Bruce and Cole	57			<12.0 g % = 36 pts.
1964	Farmer et al	100	52	48	<11.0 g % = 66 pts.
1964	Edwards and Truelove	624	251	373	< 9.0 g % = 127 pts.
1967	Ormerod	479	208	271	<12.0 g % = 400 pts.

*Children

TABLE II

FECAL BLOOD IN ULCERATIVE COLITIS

Author	Disease Status	No. of Patients	Method	Fecal Blood Loss ML/Day
Beal et al	Quiescent	5	^{51}Cr-RBC-fecal excretion	6 to 25
Ormerod	Active	23	^{51}Cr-RBC-fecal excretion	1 to 89
Stack et al	Active	17	^{59}Fe-whole body technic	50 to 200/week
Holt et al	Quiescent & Active	23	^{59}Fe-whole body technic	8.5 (mean)
Sheehy	Active	9	^{59}Fe-whole body technic	4 to 39 (mean 12)
	Remission	5	^{59}Fe-whole body technic	2 to 10 (mean 6)

TABLE III

INCIDENCE OF THROMBOSIS IN CHRONIC ULCERATIVE COLITIS

Year	Investigators	Incidence
1936	Bargen & Barker	32.5% of 43 autopsies
1946	Ricketts & Palmer	19% of 206 cases
1949	Warren & Sommers	7% of 60 necropsy and 120 surgical cases
1950	Sloan et al	15.1% pulmonary embolism in 99 autopsies
1952	Dennis & Karlson	7.5% of 267 cases
1964	Edwards & Truelove	6.4% of 624 cases
1966	Graef et al	39% of 100 cases

TABLE IV

SERUM B-12 LEVELS AND ABSORPTION IN REGIONAL ILEITIS

Number	Serum B-12 Levels uug/ml	^{58}Co-B-12% Excretion/ 24 hrs	HCT g/100 ml	MCV cu mm	Fecal Fat g/24 hrs.	Intestinal Lesion
1 M-23	48	3	35	98	9	Ileum
2 F-31	74	3	41	89	10	Ileum
3 M-30	90	4	32	100	8	Ileum
4 M-24	62	6	37	101	12	Ileum
5 M-41	252	14	43	89	3	Ileum
6 M-46	50	4	35	74	14	Ileum & Jejunum
7 M-28	35	5	41	102	9	Ileum
8 M-27	98	1	39	92	19	Ileum
9 M-34	200	10	42	90	4	Ileum
10 M-25	180	8	45	90	5	Ileum
Normal	160-900	>8%	42-47	80-96	<6.0	

(Continued from Page 125)

the use of anticoagulants must be individualized for each patient according to the patient's clinical status and the risk of hemorrhage[58].

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(References Continued on Page 134)

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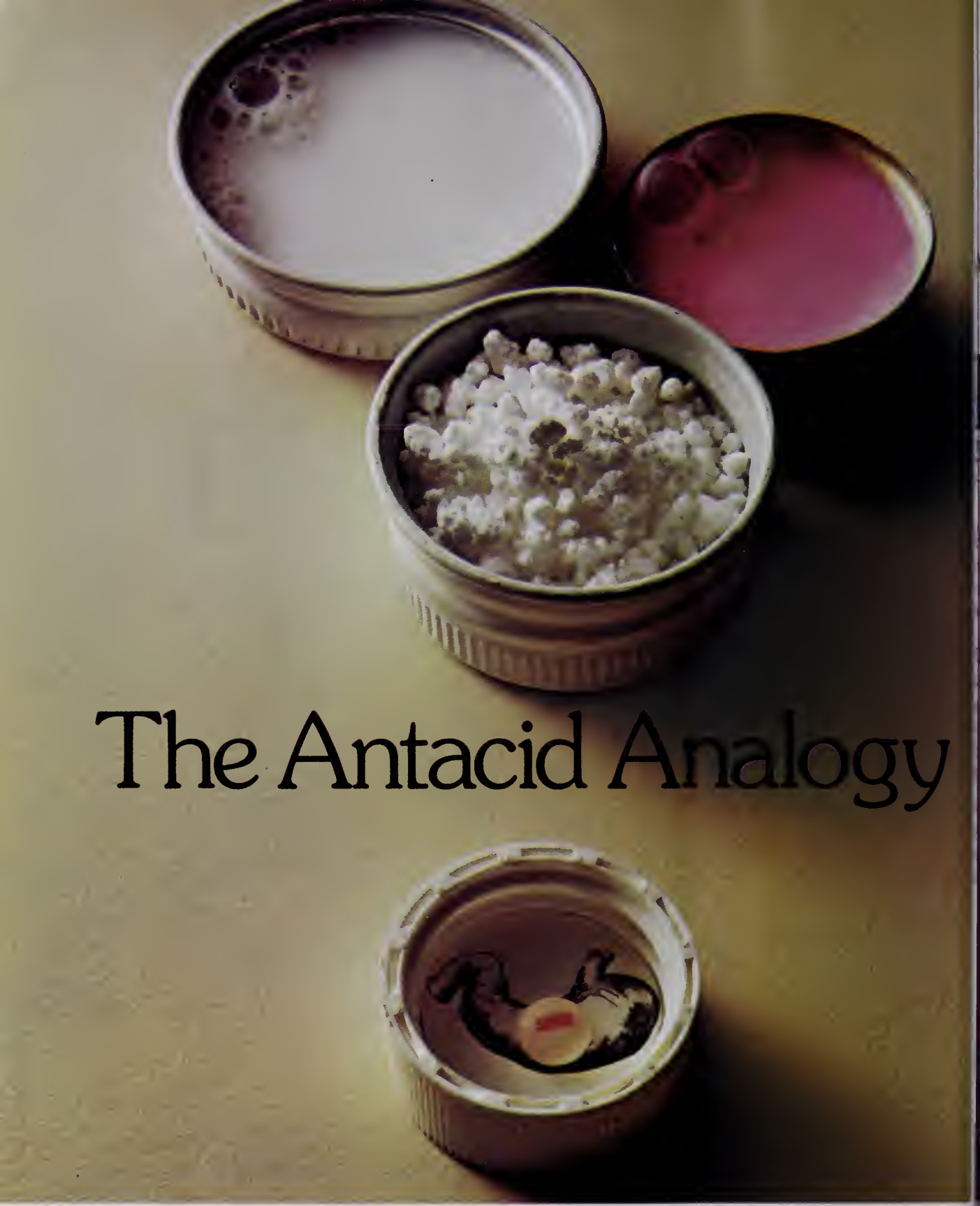


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*Innes, I. R., and Nickerson, M., in Goodman, L. S., and Gilman, A. (editors): The Pharmacological Basis of Therapeutics, ed. 4, New York, The Macmillan Company, 1970, p. 537.

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cur as well as mydriasis and blurred vision. In addition the following lverse reactions have been reported: nervousness, drowsiness, dizziness, somnia, headache, loss of the sense of taste, nausea, vomiting, constipa-n, impotence and allergic dermatitis.

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The Role of the Detail Man

Opinion & Dialogue



Dr. Willard Gobbell
Family Physician
Encino, California

"I may be prejudiced, but I am very much in favor of the detail men I meet. Most of them are knowledgeable about the drugs they promote and can be a great help in acquainting me with new medication."

Family Physician's Perception

I think that most general practitioners in this area feel as I do about the detail man. Over the years I have gotten to know most of the men who visit me regularly and they in turn have become aware of my particular interests and the nature of my practice. They, therefore, limit their discussion as much as possible to the areas of interest to me. Since I usually see the same representative again in future visits, it is in his best interest to supply me with the most honest, factual, as well as up-to-date information about his products.



Dr. Jeremiah Stamler
Chairman
Department of Community Health and Preventive Medicine, and Dingman Professor of Cardiology
Northwestern University Medical School

"In the total picture of dealing with health problems in this country there is a potential for detail men to play a meaningful role."

The Positive Influence

My contact with representatives and salesmen of the pharmaceutical industry is the type of contact that people in a medical center, research people, and academic people have and that's in all likelihoo on a somewhat different level from that of the practicing physician.

Let me touch on how I personally perceive the role of the sales representative. These men reach large numbers of health professionals. Thus they could be—and at times actually are—disseminators of useful information. They could consistently serve a real educational function in their ability to discuss their products.

At present they do distribute printed material, brochures and pamphlets—some of it scientifically sound and therefore truly useful—as well as some excellent films produced by the pharmaceutical industry. When they function in this

He a Source of Information?

Yes, with certain reservations. ıe average sales representative ıs a great fund of information ɔout the drug products he is re- ɔonsible for. He is usually able to ıswer most questions fully and telligently. He can also supply ·prints of articles that contain a ·eat deal of information. Here, o, I exercise some caution. I usu- ly accept most of the statements ıd opinions that I find in the ıpers and studies which come om the larger teaching facilities. goes without saying that a physi- an should also rely on other ɔurces for his information on ıarmacology.

·aining of Sales Representatives

Ideally, a candidate for the ɔsition as a sales representative a pharmaceutical company ıould be a graduate pharmacist ho has a questioning mind. I don't ıink this is possible in every case, ıd so it becomes the responsibility of the pharmaceutical company to train these individuals comprehensively. It is of very great importance that the detail man's knowledge of the product he represents be constantly reviewed as well as updated. This phase of the sales representative's education should be a major responsibility of the medical department of the pharmaceutical company.

I am certain that most of these companies take special care to give their detail men a great deal of information about the products they produce—information about indications, contraindications, side effects and precautions. Yet, although most of the detail men are well informed, some, unfortunately, are not. It might be helpful if sales representatives were reassessed every few years to determine whether or not they are able to fulfill their important function. Incidentally, I feel the same way about periodic assessments of everyone in the health care field, whether they be general practitioners, surgeons or salesmen.

Value of Sampling

I personally am in favor of limited sampling. I do not use sampling in order to perform clinical testing of a drug. I feel that drug testing should rightly be left to the pharmacology researcher and to the large teaching institutions where such testing can be done in a controlled environment.

I do not use samples as a "starter dose" for my patients. I do, however, find samples of drugs to be of value in that they permit me to see what the particular medication looks like. I get to see the various forms of the particular medication at first hand, and if it is in a liquid form I take the time to taste it. In that way I am able to give my patients more complete information about the particular medications that I prescribe for them.

ɜpacity they are indeed useful; ɜrticularly in the fact that they ısseminate broadly based educa- onal material and serve not just s "pushers" of their drugs.

ıe Other Side of the Coin

Obviously, the pharmaceuti- ɜl companies are not producing all ıis material as a labor of love— ıey are in the business of selling roducts for profit. In this regard ıe ambitious and improperly moti- ɜted sales representative can ×ert a negative influence on the racticing physician, both by pre- ɜnting a one-sided picture of his roduct, and by encouraging the ractitioner to depend too heavily n drugs for his total therapy. In ıese ways, the salesman has often istorted objective reality and ndermined his potential role as an ducator.

he Industry Responsibility

Since the detail man must be n information resource as well as representative of his particular harmaceutical company, he hould be carefully selected and thoroughly trained. That training, perforce, must be an ongoing one. There must be a continuing battle within and with the pharmaceutical industry for high quality not only in the selection and training of its sales representatives, but also in the development of all of its promotional and educational material.

The industry must be ready to accept constructive as well as corrective criticism from experts in the field and consumer spokesmen, and be willing to accept independent peer review. The better educated and prepared the salesman is, the more medically accurate his materials, the better off the pharmaceutical industry, health professionals and the public—*i.e.*, the patients—will be.

Physician Responsibility

The practicing physician is in constant need of up-dated information on therapeutics, including drugs. He should and does make use of drug information and answers to specific questions supplied by the pharmaceutical representative. However, that information must not be his main source of continuing education. The practitioner must keep up with what is current by making use of scientific journals, refresher courses, and information received at scientific meetings.

The practicing physician not only has the right, but has the responsibility to demand that the pharmaceutical company and its representatives supply a high level of valid and useful information. I feel certain that if such a high level is demanded by the physician as well as the public, this demand will be met by an alert and concerned pharmaceutical industry.

From my experience, my impression is that sectors of the pharmaceutical industry are indeed ethical. I challenge the industry as a whole to live up to that word in its finest sense.

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P·M·A

(Continued from Page 128)

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SEPT. 30, 1974

PROGRAM

Sept. 30 MONDAY

7:30 a.m. **REGISTRATION**
Raad House

9:00 a.m. William H. Masters, M.D.
Virginia E. Johnson, St. Louis, Mo., "SEX AND SEXUALITY"

10:00 a.m. **COFFEE BREAK**
Exhibit Visitation

10:30 a.m. Louis C. Lundstrom, General Motors Corp., Warren, Mich., "THE STATUS OF AUTO SAFETY" (GM ESV exhibit)

11:00 a.m. Joseph D. Godfrey, M.D., Buffalo, N.Y., "WHAT'S NEW IN SPORTS MEDICINE"?



1:00 p.m. **LUNCHEON**
Continental Room

SPEAKER:
Joseph D. Godfrey, M.D.
Team Physician, Buffalo Bills,
"CONTACT"

2:00 p.m. to 4:00 p.m. **SYMPOSIUM**

"SEXUAL DYSFUNCTION"

William H. Masters, M.D.
and
Virginia E. Johnson

Reproductive Biology Research Foundation
St. Louis, Mo.

(Symposium open to physicians, physician's wives and R.N.'s)



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Virginia E. Johnson
St. Louis, Mo.



C. A. Harvey, M.D.
Groton, Conn.



Louis C. Lundstrom
Warren, Mich.



Peter C. Gazes, M.D.
Charleston, S.C.



Joseph D. Godfrey, M.D.
Buffalo, N.Y.



E. C. Wong, M.D.
Denver, Colo.



W. J. Lewis, M.D.
Dayton, Ohio



Arthur Taub, M.D.
New Haven, Conn.

OCT. 1, 1974

PROGRAM

Oct. 1 TUESDAY

8:00 am **REGISTRATION**
Raad House

9:00 am. Wm. E. Thornton, M.D., NASA, Houston, Tex., "WHAT'S NEW—SKYWARD"?

9:30 am C. A. Harvey, M.D., Naval Submarine Med. Res. Lab., Groton, Conn., "PACKAGED ENVIRONMENTS—MAN'S PROGRESS IN SUB-AQUATIC SURVIVAL"

10:00 am **COFFEE BREAK**
Exhibit Visitation

10:30 am Peter C. Gazes, M.D., Charleston, S.C., "WHAT'S NEW IN MEDICAL OFFICE EMERGENCIES"?

11:00 am E. C. Wong, Master Acupuncturist, Denver, Colo., "ACUPUNCTURE AS AN ADJUNCT"

11:30 am Arthur Taub, M.D., Ph.D., New Haven, Conn., "ACUPUNCTURE—AN HISTORICAL ANALYSIS AND PHYSIOLOGICAL CRITIQUE"



1:00 p.m. **LUNCHEON**
Continental Room

SPEAKER:
W. J. Lewis, M.D., Chairman, AMPAC Board, Dayton, Ohio, "POLITICAL ACTION—AN EFFECTIVE LONG-RANGE PLAN"

2:00 p.m. to 4:00 p.m. **SYMPOSIUM**

"NEW MEDICAL HORIZONS IN SPACE AND UNDER THE SEA"

Wm. E. Thornton, M.D.
NASA, Houston, Texas

C. A. Harvey, M.D.
Naval Submarine Medical Research Laboratory, Groton, Connecticut

TECHNICAL exhibits

T.V.M.A. 1974 proudly presents an attractive, informative and well programmed display of technical exhibits. The professional representatives who staff them are capable of furnishing background information on any products they have brought to the assembly. Plan to spend some time each day viewing the exhibits.

EXHIBITS WILL BE OPEN FROM 9:00 A.M. UNTIL 4:00 P.M.

What's on your patient's face...

may be more important than his chief complaint

Patient P.T.* seen on 3/29/67 shows typical lesions of moderately severe keratoses. Note residual scarring on ridge of nose from previous cryosurgical and electrosurgical procedures.



Patient P.T.* seen on 6/12/67, seven weeks after discontinuation of 5% FU cream. Reaction has subsided. Residual scarring not seen except that due to prior surgery. Inflammation has cleared and face is clear of keratotic lesions.

*Data on file, Hoffmann-La Roche Inc., Nutley, N.J



The lesions on his face are solar/actinic— so-called "senile" keratoses... and they may be premalignant.

Solar, actinic or senile keratoses

These lesions may be called by several names, but they usually can be identified by the following characteristics. The typical lesion is flat or slightly elevated, of a brownish or reddish color, papular, dry, rough, adherent and sharply defined. They commonly occur as multiple lesions, chiefly on the exposed portions of the skin.

Sequence of therapy— selectivity of response

After several days of therapy with Efudex® (fluorouracil), erythema may begin to appear in the area of the lesions; this reaction usually reaches its height of unsightliness and discomfort within two weeks, declining after discontinuation of therapy. This reaction occurs in affected areas. Since the response is so predictable, lesions that do not respond should be biopsied.

Acceptable results

Treatment with Efudex provides highly favorable cosmetic results. Incidence of scarring is low. This is particularly important with multiple facial lesions. Efudex should be applied with care near the eyes, nose and mouth.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Multiple actinic or solar keratoses.

Contraindications: Patients with known hypersensitivity to any of its components.

Warnings: If occlusive dressing used, may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

Precautions: If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

Adverse Reactions: Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

Dosage and Administration: Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

How Supplied: Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris(hydroxymethyl)-aminomethane, hydroxypropyl cellulose, parabens (methyl and propyl) and disodium edetate.

Cream, 25-Gm tubes—containing 5% fluorouracil in a vanishing cream base consisting of white petrolatum, stearyl alcohol, propylene glycol, polysorbate 60 and parabens (methyl and propyl).

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(Continued from Page 113)

Prescott, William E., present Birmingham to 7718 1st Avenue North, Birmingham, 35206.

Savage, Perry L., present Birmingham to 5532 First Avenue South, Birmingham, Alabama 35212.

Wade, Stanley A., Jr., Birmingham, to Rush Medical Group, 1314-19th Ave., Meridian, Mississippi 39301.

Lauderdale County

Yeargan, Reagan L., Jr., Evergreen to 205 Shirley Dr., Florence, Alabama 35630.

Madison County

Simpson, Oscar G., present Huntsville to 401 Lower Lowell Drive, Suite 16, Huntsville, Alabama 35801.

Mobile County

DeBakey, Ernest G., present Mobile to 1729 Springhill Avenue, Mobile, Alabama 36604.

Muscat, Joseph O., present Mobile to 1825 Old Shell Rd., Mobile, Alabama 36607.

Muscat, Vincent P., present Mobile to 1825 Old Shell Rd., Mobile, Alabama 36607.

Shopfner, Charles E., present Mobile to 130 Louiselle St., Mobile, Alabama 36607.

Montgomery County

Robbins, Charles N., present Montgomery to 1710 Pine St., Jackson Hospital, Montgomery, Alabama 36106.

Scanlan, Joseph M., present Montgomery, to 1710 Pine St., Room 200, 1710 Pine St., Montgomery, Alabama 36106.

Sims, William G., Montgomery, to 2000-C Brookwood Medical Center Drive, Birmingham, 35209.

Smith, Walton H. Y., present Montgomery to Apt. 114-A., 4300 Woodley Square, Montgomery, Alabama 36111.

Tuscaloosa County

Hale, Ernest E., Jr., present Tuscaloosa to Suite A, Professional Plaza West, 910 Third Ave., East, Tuscaloosa, Alabama 35401.

King, Hiram G., present Tuscaloosa to Suite A, Professional Plaza West, 910 3rd Ave., East, Tuscaloosa, Alabama 35401.

NEW TELEPHONE NUMBERS

Bapat, Kumudini S., Jefferson 934-4873

Blake, William A., Mobile 344-1830

Bonner, Mack S., Jefferson 272-6003

Burleson, Robert J., Tuscaloosa 348-6262

Kimbrough, James E., Tuscaloosa ....

Konigsberg, Charles, Jr., Tuscaloosa 345-4131

Lemmon, Gamewell A., Jefferson 933-2097

Masters, Charles J., Elmore 567-6361

Sharp, Joe F., Dallas 872-3415

Sims, William G., Montgomery 870-3320

Stallworth, Nicholas R., Calhoun 237-8004

Sudduth, William D., Dallas 875-1181

Waldo, Albert L., Jefferson 934-2351

MEMBERS REINSTATED

Tuscaloosa County

Kimbrough, James Edward, b 21, mc Ala. 52, sb 53, Box 6291, University, Alabama 35486.

MEMBERS REMOVED

Madison County

Wicks, John C., Jr., Huntsville, Alabama, Remove

ADDITIONS/CHANGES

Tuscaloosa County—New Member

Burleson, Robert Joe, b 18, mc Louisville 43, recip. Kentucky 46, Box Y, University, Alabama, 35486.

Elmore County—Officers

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VICE-PRESIDENT—Melvin D. Russell, M.D.

SECRETARY-TREASURER—Dennis E. Hall, M. D.

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For further information, contact:

Robert E. Cole, Administrator
Tranquilaire Hospital
251 Cox Street
Mobile, Alabama 36604
Phone 205/432-8811

Current Changes in the Recommendations for INH Preventive Treatment of Tuberculous Infection in Alabama

Drug Used in Preventive Therapy

A single drug, isoniazid (INH), is used for preventive therapy in a dose of 300 mg. per day for adults, and 10 mg. per kg. body weight per day, not to exceed 300 mg per day, for children, to be administered in a daily single dose over a period of 12 months. A larger dose or longer period of time is not required. Isoniazid is inexpensive, administered orally, and easy to take. As of now, no other drug has been demonstrated to be effective for preventive therapy.

On February 28-March 1, 1974, the Tuberculosis Advisory Committee and special consultants met at the Center for Disease Control, Atlanta, Georgia, to review the occurrence of hepatic dysfunction in persons on isoniazid (INH) therapy to prevent tuberculosis. Previous meetings of an Ad Hoc Committee on IHN and Liver Disease had led to recommendations for the continued use of INH preventive therapy pending further investigations of the problem (MMWR, Vol. 20, No. 26). These investigations have recently been completed. The Advisory Committee and consultants were therefore asked to discuss the additional findings to determine whether or not changes in the recommendations on the use of isoniazid are indicated, to determine by what means the risk of hepatitis can be minimized, and to advise CDC accordingly.

General conclusions reached by the group were that liver disease can occur in patients receiving isoniazid preventive therapy. Age is the predominant factor that seems to increase the risk of liver disease among subjects receiving isoniazid. Progressive liver damage is observed rarely under 20 years of age, up to 0.3 per cent at ages 20-34 years, up to 1.2 per cent at 35-49 years, and up to 2.3 per cent at 50 years and over. Daily use of alcohol may also increase the risk. The frequency may vary from place to place and time to time, depending on factors not known. The liver disease that develops is not the result of any particular manufacturing process or contaminant. The development of liver disease is not predictable in any individual patient. The morphologic pathology of isoniazid liver disease, as presently understood, does not permit its ready differentiation from viral hepatitis. Routine monitoring by laboratory tests (SGOT, SGPT) is not useful in predicting hepatic disease in isoniazid recipients.

Persons for Whom Preventive Therapy is Recommended

The use of isoniazid with appropriate safeguards must be based on a comparison of the benefit of preventive therapy with the risk of hepatic injury. It must be remembered that the chance of developing isoniazid-associated liver disease exists only during the year of preventive therapy, whereas the risk of developing tuberculous disease is present for life. For positive tuberculin reactors under 35 years of age, the benefit of isoniazid therapy in preventing tuberculosis clearly outweighs the risk of hepatitis, even in the absence of additional risk factors. In positive tuberculin reactors 35 years and over, the risk of hepatitis precludes the routine use of preventive therapy. However, the presence of additional risk factors may increase the likelihood of subsequent tuberculous disease sufficiently to warrant offering preventive therapy regardless of age.

No significant changes were made in the recommendations for preventive therapy for the following groups, (a through d) regardless of age, listed in order of priority:

a. Household members and other close associates of persons with recently diagnosed tuberculous disease

b. Positive tuberculin reactors with findings on the chest roentgenogram consistent with nonprogressive tuberculous disease, without positive bacteriologic findings, and without a history of adequate chemotherapy

c. Newly infected persons (recent converters)

d. Positive tuberculin reactors in the following special clinical situations:

(1) Prolonged therapy with adrenocorticoids

(2) Immunosuppressive therapy

(3) Some hematologic and reticuloendothelial diseases, such as leukemia or Hodgkin's disease

(4) Diabetes mellitus

(5) Silicosis

(6) After gastrectomy

e. Other positive reactors: Among persons less than 35 years of age who are positive tuberculin reactors, even in the absence of one of the four additional risk factors (such as contacts or converters) listed above, the benefit of isoniazid therapy in preventing tuberculosis clearly outweighs the risk of hepatitis. Preventive therapy is mandatory for positive reactors through age 6 years and highly recommended to age 35 years, unless there are contraindications to the use of isoniazid as listed below under screening procedures.

Screening Procedures

Isoniazid preventive therapy is contraindicated for the following persons:

a. Previous isoniazid-associated hepatic injury

b. Severe adverse reactions to isoniazid, such as drug fever, chills, rash, and arthritis

c. Acute liver disease of any etiology

Six groups were identified for whom preventive treatment is not contraindicated but who should receive special attention:

a. Those concurrently using any other medication on a long term basis.

b. Those taking diphenylhydantoin.

c. Those who are daily users of alcohol.

d. Those who have previously discontinued isoniazid because of possible but not definitely related side effects.

e. Those who may now have chronic liver disease.

f. Pregnancy: Although no harmful effects of INH to the fetus have been observed, it is prudent to prescribe only therapeutically necessary medications during pregnancy. Preventive therapy generally should be started after delivery. The increased risk of tuberculosis for new mothers is during the postpartum period, not during pregnancy.

Monitoring and Motivating

The group did not recommend any changes in procedures for monitoring and motivating the patients. No patient should be issued more than a one month's supply of INH at a time. Patients should be questioned and observed for side effects such as anorexia, nausea, vomiting, fatigue, dark urine, icterus (jaundice) and rash before refilling their monthly prescription. It concluded that monitoring by routine laboratory tests is not useful in predicting hepatic disease in isoniazid recipients and therefore is not recommended. However, in evaluating signs and symptoms, such tests are mandatory.

For additional information concerning INH chemoprophylaxis, please contact the Tuberculosis Division, Bureau of Preventable Diseases, State Office Building, Montgomery, Alabama. This memorandum supersedes all others from this office concerning INH chemoprophylaxis.

16,689 Licensed Physicians Added To U.S. Medical Profession

Another 16,689 licensed physicians were added to the U. S. medical profession in 1973 —the largest increase in newly licensed physicians in any one year in the history of U. S. medicine.

The 15 per cent increase over the number reported last year is in the 72nd annual report on medical licensure statistics by the American Medical Association's Council on Medical Education.

Of the 16,689 newly licensed physicians, 7,419, or almost one half, were graduates of foreign medical schools, reflecting for the seventh consecutive year a substantial increase in the number of foreign physicians taking state board examinations.

As of Dec. 31, 1973, there were 366,379 physicians in the United States. The total includes 326,933 licensed physicians, a net gain of 12,406 licensed physicians from the same date a year earlier, after physician losses due to deaths, retirements and return of foreign medical graduates to their homelands.

The figures should not be interpreted as meaning that only 326,933 licensed physicians are qualified to take care of patients. Thousands of physicians, working under various medical, educational and government service permits, contribute to patient care.

There were 2,213 more physicians receiving their first license in 1973 than in 1972.

New York State again had the greatest number of new physicians receiving their first license, 2,399.

The report was compiled by the AMA staff under the supervision of Henry R. Mason, MPH, research associate, Department of Undergraduate Medical Education.

The steady growth in number of foreign-trained physicians migrating to the U. S. prompts a detailed study of this phenomena in several separate articles in the same issue of the Journal.

Thousands of foreign medical graduates initially attracted by residency training opportunities in the United States have become permanent additions to the U. S. medical manpower pool, Mason says.

While the number migrating from Western countries has remained constant, there continues to be an upsurge of physicians migrating from the Far East and Middle East, he says.

The foreign graduates take a special examination to determine whether their training has been up to American standards. Beginning 1973 the test was expanded to include a one-hour examination in English, designed primarily to test the candidate's comprehension of spoken English, including words and phrases not common to the medical vocabulary.

RETIRED OR SEMI-RETIRED M. D. to do Pre-employment physicals at established Industrial Medical Clinic, 20 hours a week. 8:30 A. M. - 12:30 P. M. - Monday through Friday. Contact Dr. C. B. Thuss - 2124 4th Avenue, South- Birmingham, Alabama 35233— (205-323-1661).

JOHN SIMEON BOBO

John Simeon Bobo, M. D., Gadsden, Alabama died on July 26, 1973. Dr. Bobo was Chief of Staff and ex-officio member of the Board of Directors of Baptist Memorial Hospital; member of: Etowah County Medical Society, MASA, Alabama Hospital Association, Southern Medical Association, and AMA.

He was a Fellow of the International Society of Abdominal Surgeons and a Diplomate of the American Academy of Proctology.

Dr. Bobo was a graduate of the University of Alabama and Vanderbilt School of Medicine. He practiced surgery for 48 years.

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American College Of Surgeons Project Offers Self-Assessment Program

SESAP II, the second in a series of projects designed to help practicing surgeons evaluate their professional knowledge and continue their professional education, is now being completed by the American College of Surgeons.

The College expects more than 20,000 surgeons to participate in the self-evaluation program, for which registration is now open. Materials will be ready in October. Some 15,000 surgeons participated in SESAP I, which was initiated in 1971.

SESAP stands for Surgical Education and Self-Assessment Program, and it is just that.

It is designed to provide the surgeon with an objective measure of the strengths and weaknesses in his professional knowledge, so that he can take steps to continue his education appropriately. The ultimate goal is to provide patients with more knowledgeable surgeons.

The assessment consists of 750 multiple-choice items, covering all areas of surgery. The surgeon answers the items at his leisure and sends the completed forms to a bonded agency, which in turn forwards them to the National Board of Medical Examiners for a computerized evaluation. Neither the College nor the Board receives the names of the participants, thus assuring complete anonymity and confidentiality.

After submitting his answers, the participant receives a score and a computerized ranking of his standing among his peers. The computer also sends along a personalized critique, congratulating the participant on his performance in the areas where he has done well, and telling him where more work is indicated.

There is no passing or failing grade, nor is there any correlation between SESAP II and clinical competence. SESAP II is designed as a tool to help the surgeon map out a meaningful program of continuing education. If, for example, he finds he is weak in the area of metabolism and shock, he can arrange to attend postgraduate courses and symposia on these subjects at the College's annual Clinical Congress and Spring Meeting, and to focus his reading in this area.

SESAP II covers nine areas of surgical knowledge: pre- and postoperative care. fluids and electrolytes; shock, resuscitation, blood, anesthesia; wounds, burns, plastic, infection; cardiac, thoracic, vascular; gastrointestinal; endocrine, obstetrics/gynecology, breast; EENT, genitourinary, neurological, orthopedic; cancer; and trauma. The items in each section emphasize new knowledge developed over the past 10 years. There is no in-depth assessment of specialties, but rather an attempt to assess that information which all surgeons should know regardless of specialty. Items emphasize problems of patient management, X-ray interpretation, analysis of written and visual laboratory data, recognition of pathologic conditions, and other important principles.

The assessment was compiled by 10 committees comprising 72 of the nation's leading authorities in all areas of surgery, thus constituting what may be the nation's most outstanding surgical "faculty."

An unusual feature of SESAP II is a syllabus containing an in-depth analysis of the correct answers to each of the 750 items. The syllabus, prepared by the same "faculty" that prepared the assessment, will include all the items, illustrations, a critique for each item, references from the scientific literature pertaining to each item, and a comprehensive subject index. Because of the comprehensiveness of the syllabus, and the distinction of the committee that developed it, it will constitute one of the most outstanding surgery texts in the world.

National Cancer Institute Will Continue To Fund Dial Access System

The Southern Medical Association Cancer Information Center has been refunded for a two-year period by the National Cancer Institute upon completing its first and highly successful year in operation.

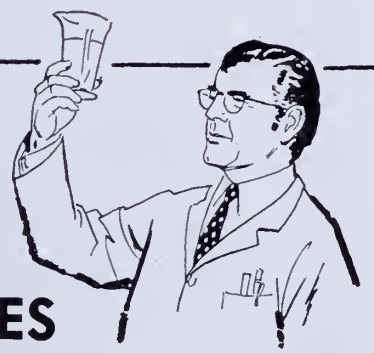
The Dial Access System, a breakthrough in cancer education, was launched at SMA's 67th Annual Scientific Meeting at San Antonio in November 1973. It is co-sponsored by the University of Texas M. D. Anderson Hospital and Tumor Institute.

A telephone communication and consultation service for cancer education and control, the Dial Access System provides physicians, dentists, nurses, health-science students and other health practitioners with immediate access to the latest diagnostic and therapeutic information regarding human cancer through a simple toll-free telephone call.

The system includes five WATS interswitchable lines to tape cartridge players carrying a tape library of 265 different discussions. This concise information is authored by members of SMA with expertise in the study and management of various types of human cancer, and the staff of the University of Texas M. D. Anderson Hospital and Tumor Institute. The tapes are continually updated when new information becomes available.

A complete catalog of the taped conversations was distributed earlier this year to 60,000 physicians by the Southern Medical Association.

"We are highly gratified over the acceptance of this important program," Dr. Carroll said. "The fact that it has been refunded for two years means that we can develop additional areas of coverage and expand and update many phases of the system."



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SIGHTS AND SOUNDS

TRANSVESICO-CAPSULAR PROSTATECTOMY: AN IMPROVED TECHNIQUE (22-725)

Guy W. Leadbetter, M. D., Wyland F. Leadbetter, M. D.

This film demonstrates a modified procedure combining the good features of both retropubic and suprapubic enucleation of the prostate. The major steps in the procedure are illustrated in detail prior to demonstration of the surgical technic. A postoperative voiding cystourethrogram demonstrates the wide prostatic fossa and good control obtained with this operation.

16 mm., sound, color, 20 minutes (1960) IV

TOTAL TRANSSACRAL PROSTATECTOMY (22-756)

Arthur T. Evans, M. D., Joseph M. Marlin, Jr., M. D.

The authors' technique for the transsacral approach to the prostate is presented in two patients. Medical art has been included to more clearly define the improved exposure of the prostate, the lower posterior bladder, the seminal vesicles, the retrovesical ureters and the proximal urethra.

Visualization of the lower rectum and treatment of associated rectal, urethral or vesical fistulae seen in association with anal atresia is stressed.

16 mm., sound, color, 25 minutes. (1966) IV

TRANSURETHRAL PROSTATECTOMY: A TEACHING FILM (22-757)

Donald R. Krawitt, M. D., Herbert Brendler, M. D.

Urological surgeons agree that transurethral prostatectomy is one of the most difficult procedures to teach. This film demonstrates the usefulness of the motion picture for this purpose. Medical illustration and superb endoscopic photography acquaint the beginner with key points always encountered during transurethral prostatectomy.

16 mm., sound, color, 20 minutes. (1966) IV

TRANSURETHRAL RESECTION OF BLADDER TUMOR (22-762)

Rubin Flocks, M. D.

The rationale and technique of transurethral resection of the large B1 bladder cancer is demonstrated, including intravenous plyeography and a discussion of the required armamentarium. For teaching purposes, a cadaver is used for an additional detailed demonstration of surgical techniques.

16 mm., sound, color 20 minutes. (1966) IV

TRANSURETHRAL RESECTION OF BLADDER NECK OBSTRUCTION (22-763)

Rubin Flocks, M. D.

The indications for the various surgical approaches to the prostate are discussed and the required diagnostic procedures and equipment are demonstrated in detail.

Included in this film is a demonstration of the authors' technique for transurethral prostatectomy using exposure possible only with a cadaver for additional teaching value.

16 mm., sound, color, 20 minutes. (1966) IV

PERINEAL EXTERNAL URETHROTOMY (22-748)

Michael K. O'Heeron, M. D.

Perineal external urethrotomy is of value to the transurethral resectionist in cases of anterior urethral strictures and large prostate glands.

16 mm., color, sound, 10 minutes, (1965)

The previous films are offered by Eaton Laboratories. They may be obtained by contacting your local Eaton representative or by writing to: Eaton Medical Film Library, Eaton Laboratories Division, Morton-Norwich Products, Inc., Norwich, New York 13815

(Continued from Page 116)

the emergency medical technician (EMT) may advance up a career ladder.

This, then is a plea for all hospital emergency services to work with their transportation units to form a complete, welded outfit. To those physicians who are working in a hospital emergency department, ask yourselves: Do you know the ambulance personnel who bring the patients to your hospital? Are they part of your emergency service? Do you help train them? Do you tell them about their successes and their failures? Do you make them a part of the emergency medical team?

The provision of Emergency Medical Services (EMS) is a community action program which involves the providers of emergency medical care, public agencies such as fire and police departments, health departments, health planning groups, and community leaders. Physicians cannot provide all aspects of emergency medical services, but because of their position as captain of the emergency medical care team they should take the necessary steps to insure the provision of Emergency Medical Services by all components of the ENS system. The time for action is now, "Before the Emergency".

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CONTRAINDICATIONS: Hypersensitivity to any of the tetracyclines.
WARNINGS: Tetracycline usage during tooth development (last half of pregnancy to eight years) may cause permanent tooth discoloration (yellow-gray-brown), which is more common during long-term use but has occurred after repeated short-term courses. Enamel hypoplasia has also been reported. **Tetracyclines should not be used in this age group unless other drugs are not likely to be effective or are contraindicated.**
Usage in pregnancy. (See above **WARNINGS** about use during tooth development.)
Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.
Usage in newborns, infants, and children. (See above **WARNINGS** about use during tooth development.)
All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrease in fibula growth rate observed in prematures given oral tetracycline 25 mg/kg every 6 hours was reversible when drug was discontinued.
Tetracyclines are present in milk of lactating women taking tetracyclines.
To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The anti-anabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.
Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.
PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.
In venereal disease, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.
Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.
In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).
Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.
Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.
ADVERSE REACTIONS: Gastrointestinal (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in the anogenital region.
Skin: maculopapular and erythematous rashes, exfoliative dermatitis (uncommon). Photosensitivity is discussed above (See **WARNINGS**).
Renal toxicity: rise in BUN, apparently dose related (See **WARNINGS**).
Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.
Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.
Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.
Over prolonged periods, tetracyclines have been reported to produce brown-black microscopic discoloration of thyroid glands, no abnormalities of thyroid function studies are known to occur.
USUAL DOSAGE: Adults – 600 mg daily, divided into two or four equally spaced doses. More severe infections an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. Gonorrhea In uncomplicated gonorrhea, when penicillin is contraindicated, 'Rondomycin' (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule 900 mg initially, followed by 300 mg q.i.d. for a total of 5.4 grams.
For treatment of syphilis, when penicillin is contraindicated, a total of 18 to 24 grams of 'Rondomycin' (methacycline HCl) in equally divided doses over a period of 10-15 days should be given. Close follow-up, including laboratory tests, is recommended.
Eaton Agent pneumonia 900 mg daily for six days.
Children – 3 to 6 mg/lb/day divided into two to four equally spaced doses.
Therapy should be continued for at least 24-48 hours after symptoms and fever have subsided.
Concomitant therapy: Antacids containing aluminum, calcium or magnesium impair absorption and are contraindicated Food and some dairy products also interfere. Give drug one hour before or two hours after meals Pediatric oral dosage forms should not be given with milk formulas and should be given at least one hour prior to feeding
In patients with renal impairment (see **WARNINGS**), total dosage should be decreased by reducing recommended individual doses or by extending time intervals between doses.
In streptococcal infections, a therapeutic dose should be given for at least 10 days.
SUPPLIED: 'Rondomycin' (methacycline HCl): 150 mg and 300 mg capsules, syrup containing 75 mg/5 cc methacycline HCl.

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Rev. 6/7

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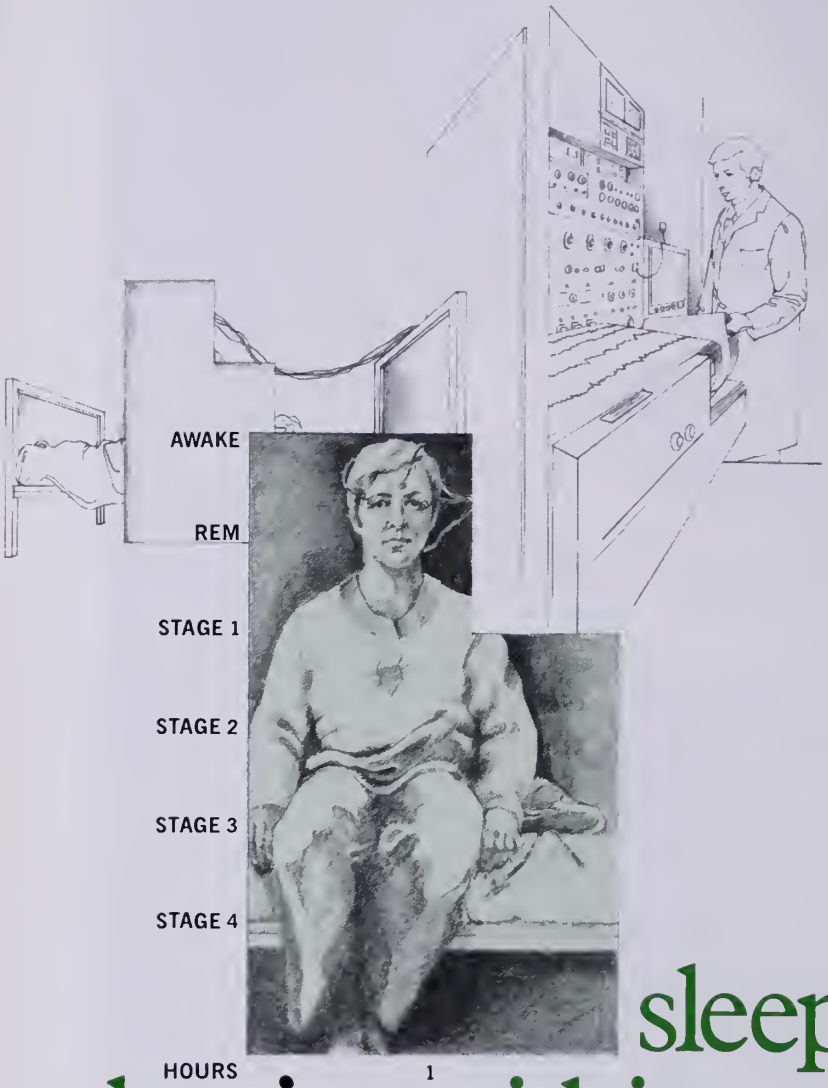
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*Since many strains are known to be resistant, routine sensitivity testing is recommended.



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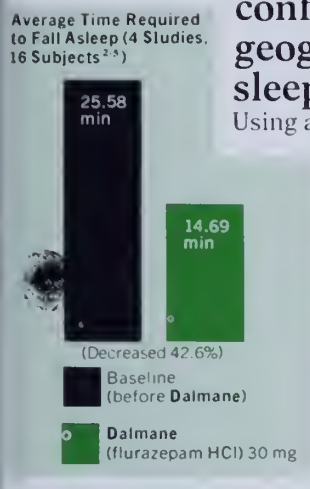
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proved by a 22-night clinical study of insomnia patients in the sleep research laboratory and at home[1]

Three insomnia patients selected for difficulty falling asleep were administered Dalmane (flurazepam HCl) 30 mg for 14 consecutive nights. Placebo was given for four nights prior to and four nights after Dalmane. Physiologic tracings on Dalmane nights 1-3 showed sleep induction time averaged 13.90 minutes; on Dalmane nights 12-14, 18.80 minutes. Combined average for the 6 monitored drug nights was 16.35 minutes.[1]



confirmed by clinical studies in four geographically separated sleep research laboratories[2-5]

Using a 14-night protocol involving eight insomniac and eight normal subjects, four studies confirmed the sleep-inducing effectiveness of Dalmane (flurazepam HCl) and the reproducibility of this response. On average, one 30-mg capsule induced sleep within 17 minutes. In all these studies, Dalmane induced sleep rapidly, reduced nighttime awakenings, and provided 7 to 8 hours of sleep without repeating dosage.[2-5]

Dalmane (flurazepam HCl) induces and maintains sleep, with relative safety

Dalmane is generally well tolerated; morning "hang-over" has been relatively infrequent. While dizziness, drowsiness, lightheadedness and the like have been noted most often, particularly in the elderly and debilitated, physicians should be aware of the possibility of more serious reactions, as noted below.

Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

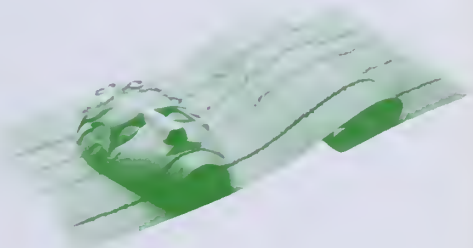
Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



when restful sleep is indicated

Dalmane®
(flurazepam HCl)

One 30-mg capsule *h.s.* — usual adult dosage (15 mg may suffice in some patients).
One 15-mg capsule *h.s.* — initial dosage for elderly or debilitated patients.

- **induces sleep within 17 minutes, on average**
- **reduces nighttime awakenings**
- **sustains sleep 7 to 8 hours, on average, without repeating dosage**

REFERENCES: 1. Kales A, *et al*: *Arch Gen Psychiatry 23*:226-232, Sep 1970
2. Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington DC, May 3-7, 1971
3. Frost JD Jr: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ
4. Vogel GW: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ
5. Dement WC: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ

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Neither man nor the gorilla can synthesize vitamin C. Interestingly, the slow loris, a primate much further down the evolutionary scale, can convert L-1,4-gulonolactone to ascorbic acid in its liver and presumably does not require an exogenous source of ascorbic acid.

Because man can neither synthesize vitamin C nor store most of the water soluble vitamins, these nutrients must be replenished continuously in order to maintain normal tissue levels.

Generally, this is accomplished in his daily diet. But under conditions of illness, stress, in convalescence or following surgery, vitamin stores may be depleted or metabolic demands increased.

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New Society Will Boost Voluntarism By Physicians

Boosting voluntary health care service by American physicians both at home and abroad is the objective of a new organization formed this summer, Association of American Volunteer Physicians (AAVP).

Nucleus of AAVP is a group of several hundred American doctors who served brief volunteer tours in Vietnam, treating civilians in hospitals. They were participants in the American Medical Association's Volunteer Physicians for Vietnam program.

The Vietnam veterans formed the new society at a meeting in June in Chicago in conjunction with the AMA annual convention.

Among the stated goals of AAVP will be to participate, upon request, in cooperative health programs throughout the world, working in concert with the National Council for International Health, and a primary objective will be to encourage voluntarism in medical programs at home and abroad.

AAVP will maintain liaison with various organizations utilizing physicians volunteers abroad and will assist in professional and technical services. Its members will contribute to continuing education programs abroad, and will be available for professional service in national and international disasters.

Officers of AAVP are Lawrence A. Smookler, M. D., of San Francisco, president; Peter A. Nathan, M. D., of Portland, Ore., president elect; Albert B. Hagedorn, M. D., of Rochester, Minn., vice president; James F. Gerrits, M. D., of St. Clair, Mich., secretary-treasurer, and Charles R. Bowers, M. D., of Anderson, Ind., John V. Connolly, M. D., of Galveston, Texas, and Victor S. Falk, M. D., of Edgerton, Wis., councilors.

AAVP membership will be open to physicians who have served overseas with voluntary organizations and agencies, including those who participated in the AMA program in Vietnam.

Further information on the new organization is available through Dr. James F. Gerrits, M. D., secretary-treasurer, Post Office Box 107, Marysville, Mich. 48040.

Health Department Adopts New Method For Preserving Cultures

A new method of preserving and transporting gonorrhea cultures for laboratory analysis has been instituted by the Alabama Department of Public Health. The bag/tablet method replaces the cumbersome candle/jar, according to Dr. James L. Holston, assistant director of the Clinical Laboratory Administration.

Dr. Holston, who is one of the developers of the new method, said the bag/tablet method is at least as effective as the candle/jar technique, and it promises to be more efficient and to make transportation of the cultures easier. The public health laboratory ran 5,000 duplicate gonorrhea cultures, comparing the candle/jar method with the bag/tablet method. There was no statistical difference in the test results, Dr. Holston pointed out.

When using the bag/tablet method, the physician or nurse who takes the specimen places the gonorrhea culture dish in a small plastic bag. A small pill consisting of citric acid and sodium bicarbonate is also placed in the bag, and the bag is sealed. Moisture triggers a chemical reaction in the pill, causing it to give off carbon dioxide. The result is a low oxygen atmosphere, which is conducive to the growth of the fastidious gonococcus organism, Dr. Holston explained.

One of the major problems in gonorrhea testing, he said, has been the delivery of cultures to the laboratory in a viable state. "The bag/tablet method accomplishes that," Dr. Holston stated, "and I think it is one of the most exciting developments in venereal disease control in the past 10 years."

Dr. Holston collaborated with Dick Martin, research microbiologist with the Center for Disease Control, in developing the new method. Mr. Martin is also one of the developers of the Thayer-Martin culture media for gonorrhea testing.

The Ames Company has patented the bag/tablet method, Dr. Holston said, and the firm plans to market a bag/tablet kit. Supplies are currently available to physicians and county health departments from the central public health laboratory, Montgomery.

The method, called "Gonopack," will be published in the October, 1974, edition of "The Journal of Clinical Pathology," which has nationwide circulation.

Montgomery, Alabama: Emergency Physicians. Immediate openings available to eventually organize ED group of four full-time physicians. $45,000 per annum for basic 44 hour week. Flexible work schedules plus fringe benefits. Contact Taylor Morrow, Administrator, Montgomery Baptist Hospital, P. O. Box 11010, Montgomery, Alabama 36111 (205) 288-2100.

RESOLUTION OF APPRECIATION

WHEREAS, John Murphy Chenault, M. D., Decatur, Alabama, has rendered long, faithful and exemplary service to this Association, and

WHEREAS, he has labored tirelessly at all echelons of organized medicine to improve the conditions of all men, and

WHEREAS, for fourteen years Dr. Chenault has served at the national level of organized medicine as delegate, Trustee, committee chairman and member of various American Medical Association committees, and

WHEREAS, he served this year as Vice-Chairman of the AMA Board of Trustees, and

WHEREAS, Dr. Chenault has served as President of the Morgan County Medical Society, and

WHEREAS, he has served for twenty years as a member of the College of Counsellors of the Medical Association of the State of Alabama, and

WHEREAS, since 1960 he has served as a member of this Association's Board of Censors, and its chairman since 1967, now therefore be it

RESOLVED, that this Board does hereby commend and applaud the vigorous, dedicated service of Dr. John Murphy Chenault, and be it further

RESOLVED, that the Board of Censors express its gratitude to Dr. Chenault for the friendship, dedication and faithful service he tirelessly gives to us, and be it finally

RESOLVED, that the Secretary of the Association be instructed to spread these resolutions upon the pages of the minutes of this meeting and to transmit a copy to the Morgan County Medical Society to be placed in its archives.

Adopted this 17th day of July, 1974

MEMORIAL RESOLUTION

WHEREAS, James Glenn Donald, M. D., of Mobile, Alabama, did depart this life on July 15, 1974 and

WHEREAS, during his lifetime he adhered to the highest traditions of the medical profession and made significant contributions to the health and well being of the citizens of this State, and

WHEREAS, he served the Medical Association of the State of Alabama with distinction as its President from April 1965 to April 1966, and

WHEREAS, at the time of his death Dr. Donald was serving as Governor of the Alabama Chapter of the American College of Surgeons, and

WHEREAS, he had served as a vice-president of the Southern Surgical Association, and

WHEREAS, The Board of Censors of the Medical Association of the State of Alabama, on behalf of its entire membership, regrets the loss of this great man, now therefore be it

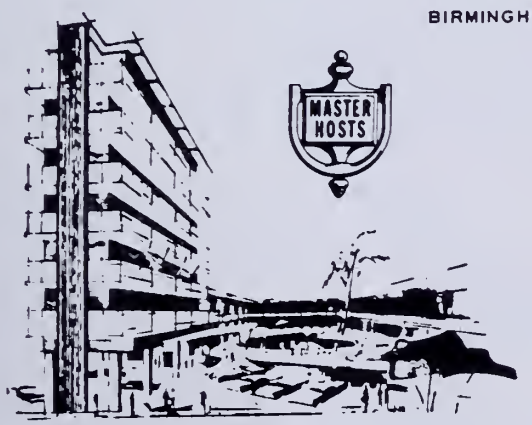
RESOLVED, that the Board of Censors does express its grief at the loss of Dr. James Glenn Donald from our midst, and be it further

RESOLVED, that we extend our sympathies to his bereaved family, and be it finally

RESOLVED, that the Secretary of the Association be instructed to spread these resolutions upon the minutes of this meeting and to transmit copies to the Medical Society of Mobile County and to the Widow of Dr. Donald.

Adopted this 17th day of July 1974.

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Contraindications: Sulfonamide hypersensitivity; pregnancy at term and during nursing period; infants less than two months of age.

Warnings: Safety during pregnancy has not been established. Sulfonamides should not be used for group A beta-hemolytic streptococcal infections and will not eradicate c
vent sequelae (rheumatic fever, glomerulonep
of such infections. Deaths from hypersensitivity
tions, agranulocytosis, aplastic anemia and other
dyscrasias have been reported and early clinical signs
throat, fever, pallor, purpura or jaundice) may indicate s
blood disorders. Frequent CBC and urinalysis with micro
examination are recommended during sulfonamide therapy. I
cient data on children under six with chronic renal disease.

Precautions: Use cautiously in patients with impaired re
hepatic function, severe allergy, bronchial asthma; in gluc
phosphate dehydrogenase-deficient individuals in whom
related hemolysis may occur. Maintain adequate fluid int
prevent crystalluria and stone formation.

Adverse Reactions: *Blood dyscrasias* (agranulocytosis,
tic anemia, thrombocytopenia, leukopenia, hemolytic anemi

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a, hypoprothrombinemia and methemoglobinemia); a*llergic ctions* (erythema multiforme, skin eruptions, epidermal necrolyurticaria, serum sickness, pruritus, exfoliative dermatitis, anaactoid reactions, periorbital edema, conjunctival and scleral ction, photosensitization, arthralgia and allergic myocarditis); *trointestinal reactions* (nausea, emesis, abdominal pains, hepadiarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* adache, peripheral neuritis, mental depression, convulsions, ia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous ctions* (drug fever, chills, toxic nephrosis with oliguria and ria, periarteritis nodosa and L.E. phenomenon). Due to certain mical similarities with some goitrogens, diuretics (acetazolae, thiazides) and oral hypoglycemic agents, sulfonamides have sed rare instances of goiter production, diuresis and hypoglyia as well as thyroid malignancies in rats following long-term inistration. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis).

Usual adult dosage: 2 Gm (4 tabs or teasp.) initially, then 1 Gm *b.i.d.* or *t.i.d.* depending on severity of infection.

Usual child's dosage: 0.5 Gm (1 tab or teasp.)/20 lbs of body weight initially, then 0.25 Gm/20 lbs *b.i.d.* Maximum dose should not exceed 75 mg/kg/24 hrs.

Supplied: Tablets, 0.5 Gm sulfamethoxazole; Suspension, 0.5 Gm sulfamethoxazole/teaspoonful.

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PHYSICIAN PLACEMENT SERVICE IN ALABAMA

The Physician Placement Service of the Medical Association of the State of Alabama is designed to assist both physicians and communities. MASA members having knowledge of practice opportunities or wishing to relocate their own practices are urged to communicate with the Placement Service. For further information: write Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, 19 South Jackson Street, Montgomery, Alabama 36104, or Telephone 263-6441.

Locations Wanted

Anesthesiology—

Age 45; SUNY, Syracuse, 1954; National Board; Board certified; seeking group or administrative or pharmaceutical industry. LW-0

General Practice—

Age 28; Indiana University 1972; Board eligible; seeking associate or group. Available July 1975. LW-1/3

Age 47; Manila Central University 1955; Board eligible; seeking solo, associate, industrial, institutional or emergency room (pathology or general practice). Available Fall 1974 or 1975. LW-1/5

Age 31; Indiana University 1970; seeking group, institutional or emergency room practice. Available October 1974. LW-1/6

Internal Medicine—

Age 31; Downstate Medical Center, 1968; National Board, Board certified; seeking associate, group or institutional practice (interest in cardiology); Available July 1975. LW-4/13

Age 34; Indiana University, 1968; Board certified-int. med.; Board eligible-nephrology; seeking group practice. Available July 1975. LW-4/14

Age 51; Baylor University, 1947; Board certified-AP, CP; Board eligible-int. med.; seeking associate, group or emergency room. LW-4/15

Age 31; Medical College of Georgia, 1968; Board eligible; seeking associate practice in North Alabama or coastal area. Available July 1975. LW-4/4

Age 33; Medical College of South Carolina, 1966; Board certified; seeking group or associate. Available September 1975. LW-4/5

Age 32; Emory University, 1968; seeking solo, associate or group practice. Available July 1975. LW-4/6

Age 32; University of Arkansas 1968; Board eligible; seeking associate, group or institutional practice (interest in pulmonary medicine). Available July 1975. LW-4/12

Obstetrics-Gynecology—

Age 32; Medical College of Georgia, 1968; Board eligible; seeking associate practice. Available July 1975. LW-5

Ophthalmology—

Age 31; Vanderbilt, 1968, National Board; Available July 1975. LW-10/2

Age 38; Baylor 1962; Board certified; seeking solo, associate, group, industrial, or institutional practice. Available September 1974-Jan. 1975. LW-10

Age 31; Vanderbilt University 1968; National Board; Available July 1975. LW-10/1

Pediatrics—

Age 30; Georgetown Medical School, 1970; National Board; Board eligible; seeking associate, group, industrial practice. Available July 1975. LW-7/4

Surgery—

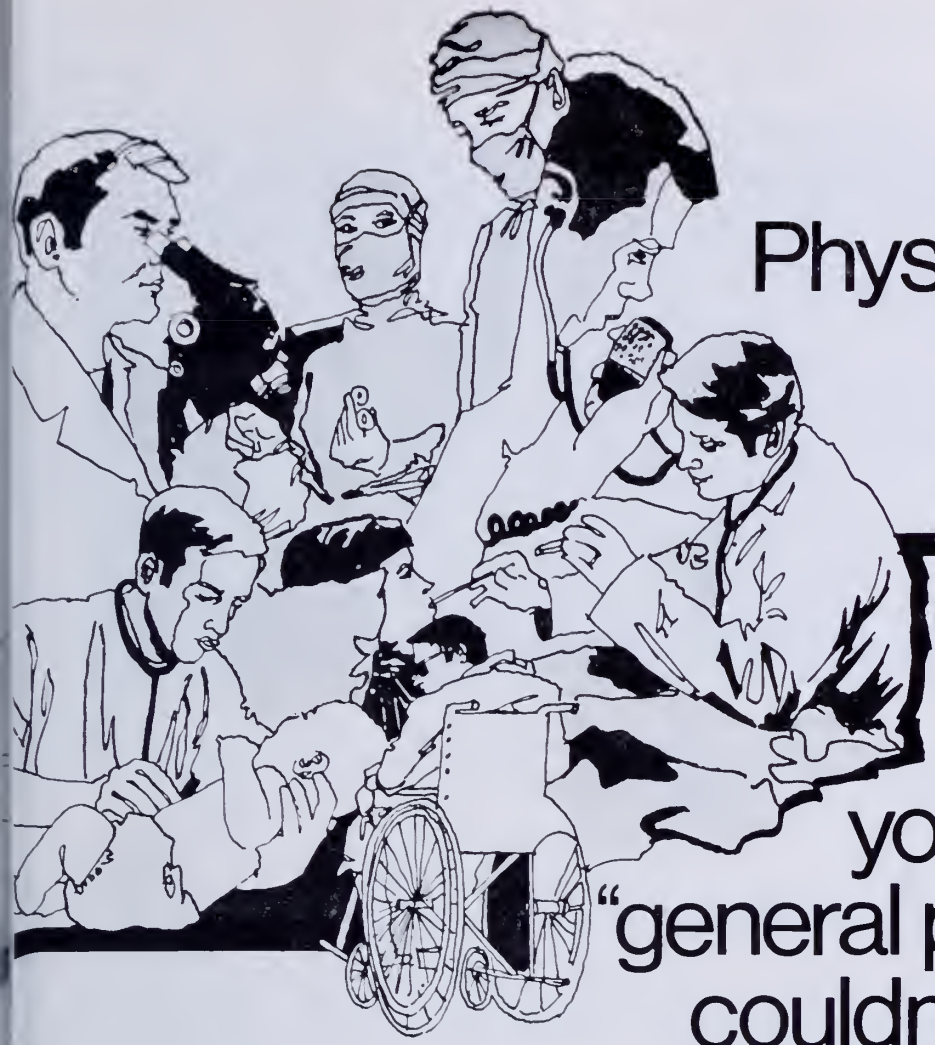
Age 32; New York Medical College, 1968; National Board, Board certified; seeking solo, associate or group practice. Available July 1975. LW-8/2

Age 34; Bowman Gray 1966; Board certified; seeking associate or group. Available August 1975. LW-8/3

Age 31; American University, Beirut Lebanon 1966; National Board; seeking associate or group practice. Available October 1974. LW-8/4

Age 31; University of Santo Tomas 1965. LW-8/7

(Continued on Page 160)



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State _____ Zip _____ Phone _____

Profession _____ Date of Birth _____

Air Force Medicine

(Continued from Page 158)

Urology—

Age 31; Creighton University, 1969; Board eligible; seeking solo, associate or partnership. LW-9/4

Age 32; Georgetown University, 1968; National Board; Board eligible; seeking associate, group or industrial. Available Fall 1975. LW-9/2

Age 45; Medical College of South Carolina 1954; Board certified; seeking solo, associate or group. Available September 1974. LW-9/3

Physicians Wanted

General Practitioners—

Physician wanted for general practice in town of 7,000 population with trade area of 15,000 population located in central Alabama. 35-bed hospital located in town. Office space available near hospital. Nearest large city with population of 50,000 is 30 miles away. Numerous churches and schools. Lumber and textile industry. Recreational activities and civic clubs. PW-8/2

Physician wanted for general practice, group or associate, in University town of 40,000 population. Salary and partnership negotiable. PW-1

General Practitioner wanted for multi-specialty group practice on Bay in South Alabama. Modern offices, near hospital. Salary with incentive available. Excellent churches, schools and recreational facilities. PW-2

Associate wanted in a three physician general practice in a rural county near Mobile. Salary initially with anticipated early partnership arrangement. 30-bed county hospital adjoining the office. PW-3

Opportunity for General Practitioner in South Alabama community with a trade area of 20,000 to 25,000 population. Modern hospital with certified surgeon, radiologist, and cardiologist on staff. Present physicians interested in partner, forming Professional Association or may enter into private practice. Free office space available, or physicians in the area interested in building new office building. Excellent school system with junior college within 15 miles. PW-4

Family physician needed as associate with well established physician in small North Alabama town. Modern, fully equipped hospital. Office space and equipment available. Salary negotiable plus other benefits. PW-5

Opportunity for young internist or family physician to join three man group in rapidly growing town of 12,000 population in Tennessee Valley. Excellent hospital. Modern well-equipped office. PW-6

Opportunity in southeast Alabama in town of 3,000 population, trade area of 15,000 population. Nearest large city, 8 miles, 40,000 population, and 2 large hospitals. Office space and housing readily available. Industrial and agricultural area. Churches, schools, civic and social activities. PW-7

Opportunity in south Alabama in town of 2,700 population, trade area of 15,000 population. Nearest large city of 30,000 population located 45 miles. Nearest hospital is 10 miles. One physician now engaged in practice in the town. Necessary arrangements will be made for office space, equipment, and housing. Industrial and agricultural area. Churches, schools, civic and social activities. PW-8

General Practitioner urgently needed for busy, active practice in rural densely populated area in Northeast Alabama. Modern fully equipped clinic with X-ray, lab facilities, four examining rooms, minor surgery, emergency room, physician's office, large twenty-patient waiting room, spacious business and records section, nurses and physicians lounge. Office personnel available. Accredited general hospital nearby. PW-8/1

Special Openings—

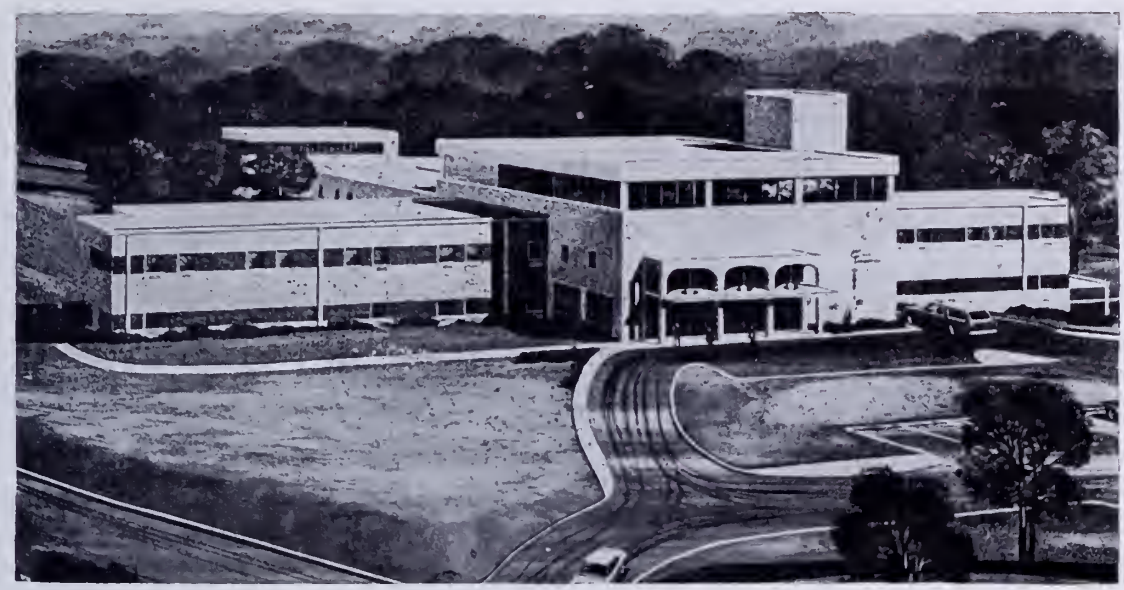
Wanted—2 Internists, 2 Ob-Gyn, 2 Pediatricians, 1 Urologist, 1 Anesthesiologist. Fee for service basis, Gross guarantee 1st and 2nd year. New office space to be available next to hospital. 100-bed hospital, modern well equipped, fulltime radiologist and pathologist. Two general surgeons and 9 general practitioners now serving population base 40,000. Unemployment in area less than one percent. Excellent recreation area. Invitations to visit with expenses paid will be directed to those qualified. PW-12

Opportunity for *Family Practice* and *Internists* in central Alabama town in population group 10,000-25,000. PW-13

Student Health Physician. (particularly interested in female physician) Opportunity available for clinical medicine in a University of 15,000 students. Four weeks annual leave, sick leave, retirement, salary negotiable. PW-14

Wanted, internists, generalists, radiologist, orthopedist, general surgeons. Town of 15,000 population in county of 45,000 population located in Southeast Alabama. Attractive for a group setup. High income area and marked scarcity of physicians. Excellent schools and recreational facilities. Newly expanded hospital. PW-9

General Surgeon and Ophthalmologist wanted for community of 22,000 population and 45,000 service area. New hospital with eight general practitioners and one Board certified radiologist. Schools for blind and deaf located in the town. Excellent schools and recreational facilities. PW-11



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According to her major
mptoms, she is a psychoneu-
tic patient with severe
ıxiety. But according to the
scription she gives of her
elings, part of the problem
ay sound like depression.
his is because her problem,
though primarily one of ex-
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ınied by depressive symptom-
ology. Valium (diazepam)
ın provide relief for both—as
e excessive anxiety is re-
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ms associated with it are also
ten relieved.

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ges in using Valium for the
anagement of psychoneu-
tic anxiety with secondary
pressive symptoms: the
ychotherapeutic effect of
alium is pronounced and
pid. This means that im-
ovement is usually apparent
the patient within a few
ys rather than in a week or
two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.

For further information on this subject, the following references are provided:

1. Henry BW, *et al: Dis Nerv Syst 30*:675-679, Oct 1969.
2. Hollister LE, *et al: Arch Gen Psychiatry 24*:273-278, Mar 1971.
3. Claghorn J: *Psychosomatics 11*:438-441, Sept-Oct 1970.



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anxiety states
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depressive symptoms

ırveillance because of their predisposi-
on to habituation and dependence. In
egnancy, lactation or women of child-
aring age, weigh potential benefit
gainst possible hazard.

ecautions: If combined with other psy-
ıotropics or anticonvulsants, consider
ırefully pharmacology of agents em-
oyed; drugs such as phenothiazines,
ırcotics, barbiturates, MAO inhibitors
ıd other antidepressants may potentiate
action. Usual precautions indicated in
ıtients severely depressed, or with latent
pression, or with suicidal tendencies.
Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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THE JOURNAL

of the

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PRESIDENT'S PAGE

J. GARBER GALBRAITH, M.D., PRESIDENT



As this is being written, Congressman Wilbur Mills has indicated that a national health insurance program will not be forthcoming during this session of Congress. At the urging of President Gerald Ford every effort was made by Congressman Mills to bring out an acceptable compromise between the various proposals previously submitted. However certain factions were unwilling to accept a compromise act, even though this course was dictated by fiscal limitations. Organized labor is holding out for a complete national health service, despite the much higher cost and the need for another large administrative bureaucracy. The feeling is that a more liberal Congress next year will be willing to support such a program, probably spearheaded again by Senator Edward Kennedy.

All would agree that some type of federal health insurance program is inevitable. Medicaid and Medicare supply basic coverage already for the indigent and the elderly. The greatest unmet need is protection against catastrophic illness by the general population. Added insurance coverage through our voluntary system, possibly subsidized by the government, could meet this need within the framework of our current health care system, and this would avoid the need for a new bureaucracy with all the accompanying added administrative expense. This is the type of approach sponsored by the AMA in its Medicredit proposal.

In view of the potential developments in Congress next year when health care legislation will be a top priority item, all physicians are urged to visit with their congressmen and senators about this matter during the coming fall congressional recess. Our views should be known to all in Congress in advance of the next session.

Another item of prime importance to all physicians is the growing medical liability problem and resultant escalating liability insurance costs. Congress has recognized this problem (witness the Ribicoff report), but has made no move toward a rational solution to the problem. It would appear appropriate and, in fact, essential for any new health legislation to include a section on medical liability in order to control the excessive number of such actions being brought against physicians. This is in no way meant to condone the guilty party in a bona-fide case, but these represent only a small minority of all such cases filed. And furthermore, most such cases are settled by arbitration and agreement rather than proceeding to jury trial. Some type of no-fault insurance program might be of value here. The consultation and advice of our insurance colleagues should be enlisted in developing appropriate legislation for better control of medical liability. Undoubtedly certain segments of the legal profession would oppose such action, but there can be no doubt about the urgency of the situation when one realizes that a physician in Canada in the Group V risk category will pay no more than $100 annually for liability coverage while the similar physician in New York City now pays between 17 and 18 thousand dollars annually for liability coverage! We must see that relief by some means is a part of any National Health Insurance Program proposed by Congress.

Be sure to visit with your Congressmen about these matters this fall!

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Precautions: Exercise caution in: moderate to severe hepatic disease; anticoagulant therapy, because of possible increased metabolism of c anticoagulants; withdrawal in drug dependence or the taking of excess doses over a long period, to avoid withdrawal symptoms; elderly or del patients, to avoid possible marked excitement or depression; use with or other CNS depressants, because of combined effects.
Adverse Reactions: Slight hangover, drowsiness, lethargy, headache, eruptions, nausea and vomiting, hypersensitivity reactions (especially with asthma, urticaria, angioneurotic edema, or similar conditions).
Usual Adult Dosage: For daytime sedation, 15 mg. to 30 mg. t.i.d. or q. For hypnosis, 50 mg. to 100 mg.
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WOMAN'S AUXILIARY

EVELYN O'BRIEN, PRESIDENT



I recently had a letter from Mrs. John Gallagher of La Jolla, California who is National Auxiliary Chairman for membership. She pointed out that while the National Auxiliary's membership has had a consistent small decline since 1969, Alabama's Woman's Auxiliary has had a small but steady increase. She asked several questions about possible reasons why our state was able to go against the national trend and I tried to answer her questions and give my own evaluation.

Alabama *has* had a slow but steady increase in our State Auxiliary. This is partly due to an increase in the number of doctors which is also true nation-wide. I realize one does not necessarily follow the other, but there is a cause and effect relationship in our state. I'll answer the questions first and give my evaluation afterwards.

One question is "Do you think the interest of older members was maintained by any particular program or projects?" We do have a sense of accomplishment in our AMA-ERF efforts. This past year the University of Alabama in Birmingham received the third largest amount in the nation. Members are in the habit of using AMA-ERF fund raising efforts such as memorial cards, Christmas cards, and jewelry. Special events such as fashion shows get a good response. Members feel these are for a good cause.

In answer to another question, we do have a good rapport with the Medical Association. We have had leaders who have stressed cooperation and assistance. We have wanted to work with the Medical Association and not separately. However, once a project is set up and approved by the appropriate association or society we assume responsibility for it and in no way burden the doctors. Our officers have been careful to keep the State Medical Association and county societies informed of our activities and have seen the wisdom in seeking approval for new projects.

One definite avenue for better internal relations is Doctor Day. We have encouraged this for a number of years in Alabama and it is an institution. It is one time each year the medical families get together to enjoy each other and it leads to understanding and appreciation of our medical neighbors. New members and prospective members recognize this.

These good internal relations between the Medical Association County Societies and the State Auxiliary and among Auxiliary members has been the reason we have felt we could work toward better public relations for the medical community in our state. And, we haven't attempted to do too much. Mainly it has been through countless, repeated volunteer action in our own communities as we are needed such as public health drives for blood, immunization, school screening; and testing for early detection of cancer.

We have had several successful conferences set up by our dedicated Health Education Chairman, Mrs. Lewis Young, where educators and public and private health authori-

(Continued on Page 177)

PRESIDENT—Mrs. Donald J. O'Brien/PRESIDENT-ELECT—Mrs. William Hughes/FIRST VICE-PRESIDENT—Mrs. J. E. Dunn, Jr./NORTHWEST DISTRICT VICE-PRESIDENT—Mrs. Charles Howell/NORTHEAST DISTRICT VICE-PRESIDENT—Mrs. Roland Murphree/SOUTHWEST DISTRICT VICE-PRESIDENT—Mrs. Charles Weaver/SOUTHEAST DISTRICT VICE-PRESIDENT—Mrs. Robert Foy/WAMASA EDITOR—Mrs. William L. Smith.



The Past 25 Months

Twenty-five months ago, at the 112th Annual Session, the College of Counsellors and House of Delegates unanimously approved a major expansion of Central Office operations designed to enhance the value of membership in this Association.

Some of these mandated programs would launch the Association into virgin territories —services which were not then, or even now, being rendered by other state medical associations. Other programs expanded greatly some operations then in existence on a hit-or-miss basis.

One of the major decisions confronting the College of Counsellors and House of Delegates was whether to invest upwards of over half a million dollars in building expansion and new equipment to accomodate the newly-approved programs.

For an Association of slightly more than 2,000 members these were critical questions for its financial reserves would not permit a blunder. Here are some of the programs approved at that Session:

1. Establish a Department of Insurance to manage and improve the many and varied insurance programs designed to benefit the membership, not the least of these being a malpractice liability program and statewide hospital-medical insurance to cover both the members and their staff personnel.

2. Establish a Department of Printing Services to provide office forms and other printing services at cost to every member of the Association.

3. Establish a Department of Education and assure that every member, regardless of the locality wherein he practices, shall have easy access to its programs.

4. Establish an Office of Legal Assistance with a special competence in areas of government-controlled programs.

5. An expanded travel service for members with emphasis on those programs offering national and international medical seminars.

6. Enlarge the existing placement service for physicians to include newly-graduated office personnel.

7. Establish an office to serve the needs of specialty groups.

8. Amend the Constitution and Bylaws to substitute the committee system for a council-committee plan and create councils on public policy, medical services, medical education and legislation.

At the 1974 Annual Session in Huntsville, the College of Counsellors and House of Delegates further directed that a seperate department to deal with legislative activities be created.

As of this date it can be reported to the College and House that all of its major directives have now been accomplished and that only two projects—a placement service for paramedical workers and establishment of a council-committee system—have not been made finally effective. These objectives will be accomplished on or before the 1975 Annual Session next year in Birmingham.

The Department of Communications, with responsibilities for public relations programs

(Continued on Page 172)

No other Malpractice Insurance Coverage fits the Doctors of Alabama so well . . .

The premium cost you pay for the Wausau Special Malpractice Insurance Policy will be based **only** on Alabama loss experience. So you don't pay to help cover losses in such "claims conscious" areas as Florida (Dade County), New York or California. No other insurance company has consented to these terms. Which is just one of the ways you benefit yourself — and the entire Alabama medical community — when you subscribe to this coverage. For information on additional benefits, contact **MASA Insurance Department, 19 South Jackson Street, Montgomery, Alabama 36104. Or call (800) 392-5668 toll free.**



THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA · 1873 ·

(Continued from Page 170)

along with several other activities, is continuing to probe and plumb for effective methods of enhancing Medicine's image. Mr. James L. Stallings has recently been named Director of this department and there are many indications that the committees responsible for these activities will soon be offering innovative recommendations to better meet the needs of the membership.

Almost one-half of the members of this Association are now participating in the MASA-Employers of Wausau Liability Insurance Program. Aside from the fact that the Association has a strong voice in determining the course of this program, there have been spectacular pecuniary benefits to the members. Other malpractice insurance carriers in Alabama had applied for premium increases ranging upwards to 100%, but these requests were withdrawn when the carriers elected to remain competitive.

In recent weeks the premium rates for some other carriers have advanced. While it is possible that the MASA/Wausau rates may be forced to follow the national pattern of increase in the future, it can be unequivocally stated that a strong Association-sponsored malpractice insurance program is the best bulwark against runaway premium charges.

The Insurance Department, of which Mr. Tom Rich is Director, is now concerning itself with improved coverage for all lines of sponsored coverage as well as several new areas not now offered. For instance, good protection can be achieved through available dental and legal insurance plans.

The Association's legal and legislative offices have been separated to the extent possible, although these two functions will always have a natural affinity. Mr. John T. Mooresmith now serves as General Counsel with responsibility to keep the membership fully informed on, and secure from, entanglements of a legal nature in Federal-State laws and regulations.

Legislative affairs, whether in Montgomery or Washington, will come under the perview of Mr. Richard C. Whitaker, a young man who has just been employed by the Association after ten years' service in the State House of Representatives. He is most knowledgeable in the legislative process and is on a first name basis with an overwhelming majority of the legislators and state personnel.

The Department of Medical Education has been side-tracked in recent months while its Director, Mr. Larry Dixon, devoted a major part of his efforts toward perfecting a Professional Standards Review Organization (PSRO) in Alabama. His work is now done and Alabama Medical Review, Inc., with its own officers, Board of Directors and Executive Director, will now assume responsibility for this operation.

Several hundred members of the Association are already availing themselves of printing services offered at the Central Office under the direction of Mr. Bill Pouncey. Based on a survey of normal printing purchases and costs, these members are reducing their printing bills by one-half or more. At this point, the quality has been uniformly good and the service has been prompt. MASA's composition and printing facilities are among the most modern to be found in Alabama.

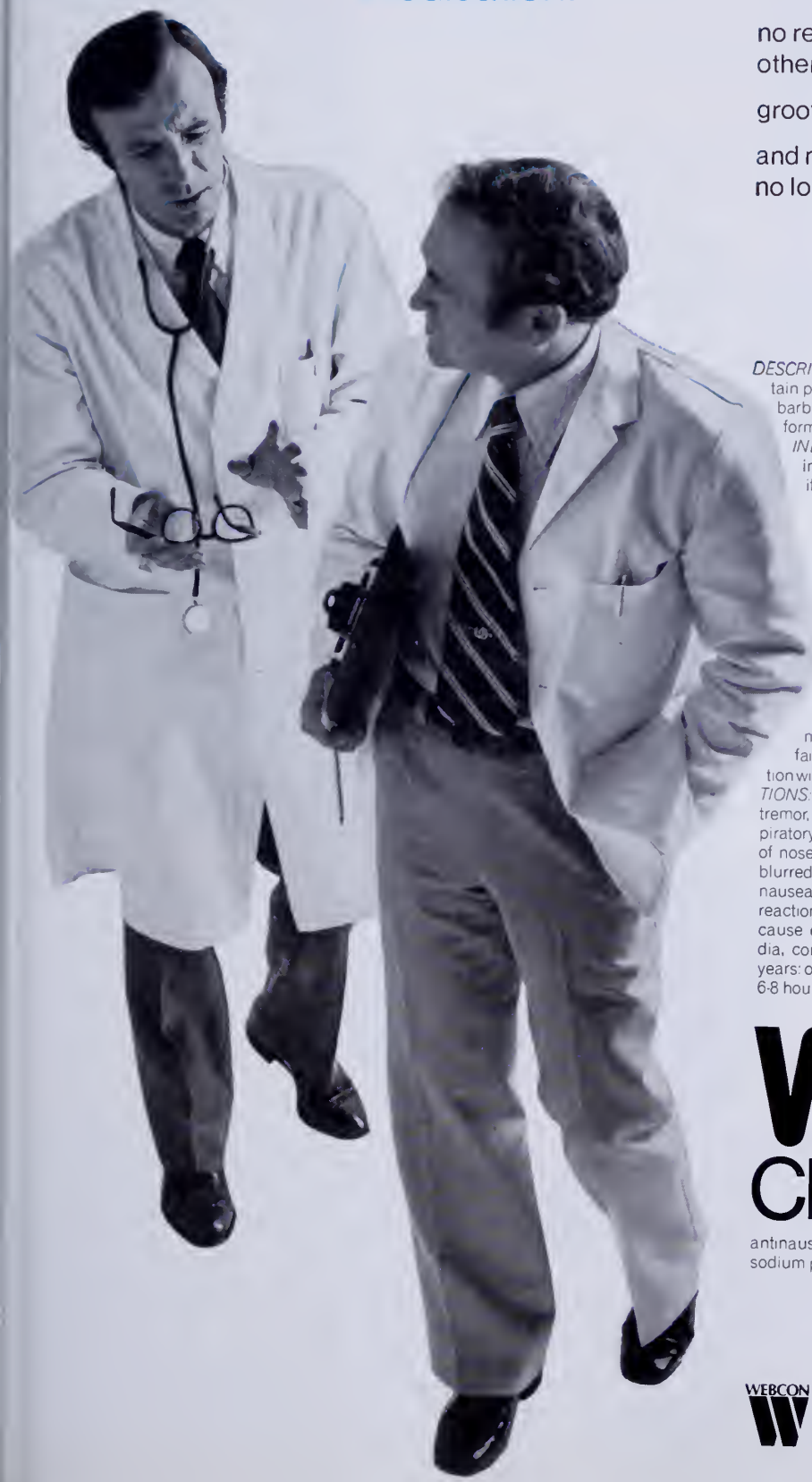
Many specialty organizations are using the facilities offered at the Central Office for their meetings, seminars and other activities. These services can be expanded whenever the specialties so desire.

The Association is now sponsoring two travel programs annually. It is estimated that more than 2,000 members and their families have participated in one or more of these programs. As experience is gained, the seminars are becoming more meaningful.

Space does not permit a detailed report on all accomplishments of the Association in the past 25 months. The foregoing is but a brief review—a stewardship report to those Counsellors and Delegates who had a dream in 1974 and the courage to make it a reality.

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rapidly deliver effective levels of medication rectally

release medication through hydrophilic action—no oils or fatty acids to interfere with drug utilization or to cause local irritation

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and no phenothiazines... no local anesthetics

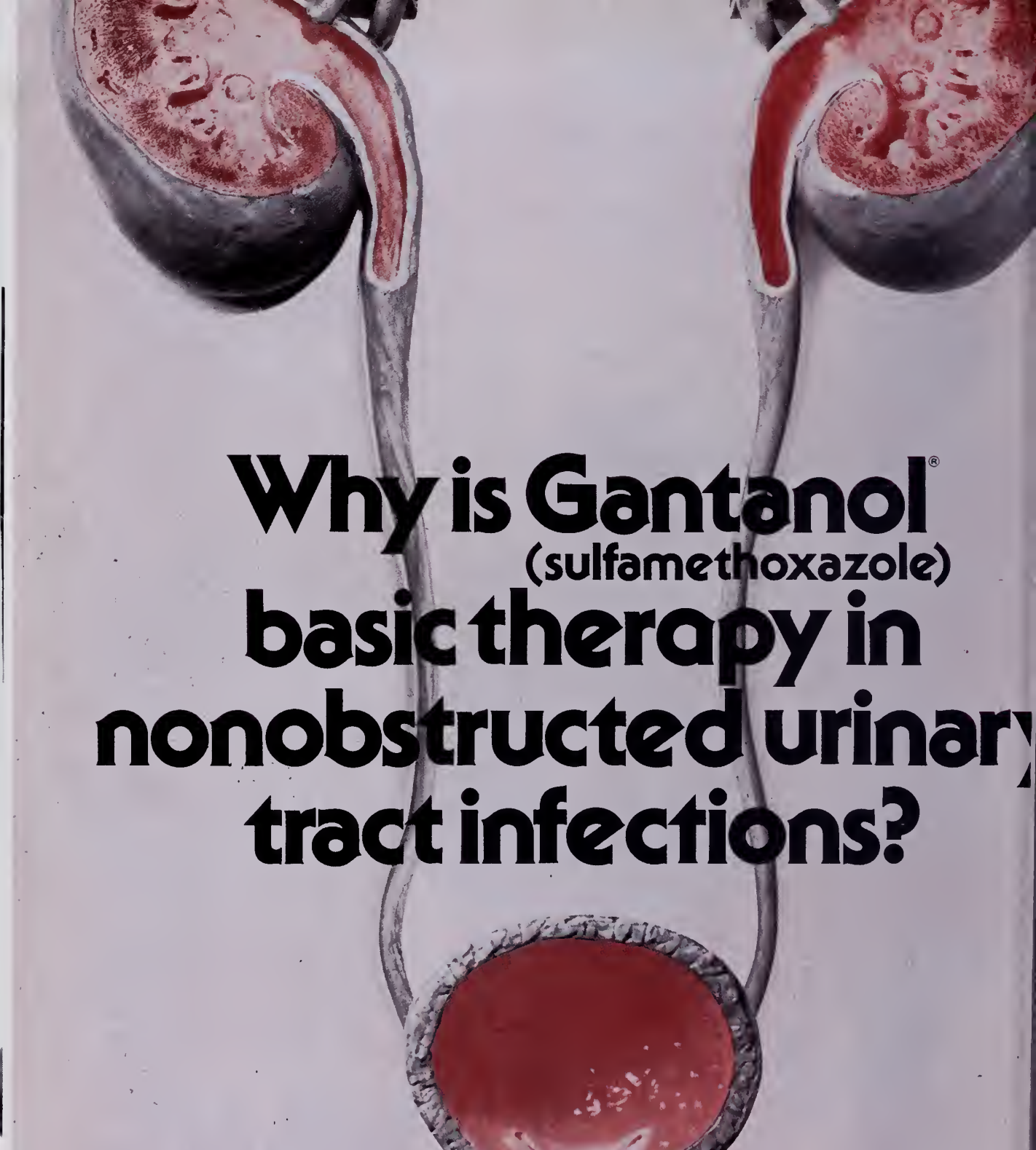
DESCRIPTION: WANS® Children Supprettes™ contain pyrilamine maleate 25 mg and sodium pentobarbital ½ gr (30 mg) (*Warning:* may be habit forming) in rectal suppository form. *CONTRAINDICATIONS.* Infants under 6 months. Acute intermittent porphyria, known hypersensitivity to barbiturates or antihistamines, known previous barbiturate addiction, severe hepatic impairment, CNS injury and presence of uncontrolled pain. *WARNINGS:* Barbiturates may be habit forming. Pre-existing psychologic disturbances may be aggravated. Acquired sensitivity may result in allergic reactions. Safety in pregnancy has not been established. *PRECAUTIONS:* Use very cautiously with other sedative, hypnotic or narcotic agents. Use with caution in patients with acute hepatic disease, fever, hyperthyroidism, diabetes mellitus, severe anemia, and congestive heart failure. May impair alertness and coordination with increased accident risk. *ADVERSE REACTIONS:* Drowsiness, fatigue, vertigo, incoordination, tremor, muscle weakness, ataxia, hypotension, respiratory despression, delirium and coma. Dryness of nose, mouth, and throat, pupillary dilatation or blurred vision, urinary retention, abdominal pain, nausea, vomiting, diarrhea, and hypersensitivity reactions. Overdose or paradoxic reaction may cause excitation, insomnia, palpitation, tachycardia, convulsions and death. *DOSAGE:* Child 2-12 years: one WANS Children Supprette rectally every 6-8 hours. Infant 6 months-2 years: ½ dosage.

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antinauseant/antiemetic pyrilamine maleate 25 mg, sodium pentobarbital ½ gr (30 mg)



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Before prescribing, please consult complete product information, a summary of which follows:

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Contraindications: Sulfonamide hypersensitivity; pregnancy at term and during nursing period; infants less than two months of age.

Warnings: Safety during pregnancy has not been established. Sulfonamides should not be used for group A beta-hemolytic streptococcal infections and will not eradicate
vent sequelae (rheumatic fever, glomerulone
of such infections. Deaths from hypersensitivity
tions, agranulocytosis, aplastic anemia and othe
dyscrasias have been reported and early clinical sign
throat, fever, pallor, purpura or jaundice) may indicate
blood disorders. Frequent CBC and urinalysis with micro
examination are recommended during sulfonamide therapy.
cient data on children under six with chronic renal disease.

Precautions: Use cautiously in patients with impaired r
hepatic function, severe allergy, bronchial asthma; in gluc
phosphate dehydrogenase-deficient individuals in whom
related hemolysis may occur. Maintain adequate fluid in
prevent crystalluria and stone formation.

Adverse Reactions: *Blood dyscrasias* (agranulocytosis,
tic anemia, thrombocytopenia, leukopenia, hemolytic anemi

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Basic Therapy

Gantanol®

(sulfamethoxazole)

Tablets/Suspension (0.5 Gm) (0.5 Gm/teasp.)

hypoprothrombinemia and methemoglobinemia); *allergic ions* (erythema multiforme, skin eruptions, epidermal necrolyrticaria, serum sickness, pruritus, exfoliative dermatitis, anactoid reactions, periorbital edema, conjunctival and scleral tion, photosensitization, arthralgia and allergic myocarditis); *ointestinal reactions* (nausea, emesis, abdominal pains, hepadiarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* dache, peripheral neuritis, mental depression, convulsions, a, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous ions* (drug fever, chills, toxic nephrosis with oliguria and a, periarteritis nodosa and L.E. phenomenon). Due to certain nical similarities with some goitrogens, diuretics (acetazola-, thiazides) and oral hypoglycemic agents, sulfonamides have ed rare instances of goiter production, diuresis and hypogly- a as well as thyroid malignancies in rats following long-term nistration. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis).

Usual adult dosage: 2 Gm (4 tabs or teasp.) initially, then 1 Gm *b.i.d.* or *t.i.d.* depending on severity of infection.

Usual child's dosage: 0.5 Gm (1 tab or teasp.)/20 lbs of body weight initially, then 0.25 Gm/20 lbs *b.i.d.* Maximum dose should not exceed 75 mg/kg/24 hrs.

Supplied: Tablets, 0.5 Gm sulfamethoxazole; Suspension, 0.5 Gm sulfamethoxazole/teaspoonful.

ROCHE

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SIGHTS AND SOUNDS

The following films are offered by Eaton Laboratories. They may be obtained by contacting your local Eaton representative or by writing to: Eaton Medical Film Library, Eaton Laboratories Division, Morton-Norwich Products, Inc., Norwich, New York 13815.

Excision and Split Skin Grafting of an Extensive Pigmented Nevus of Right Upper Extremity (22-721)

Thomas D. Cronin, M. D., Raymond O. Brauer, M. D.

This film illustrates the removal and repair, in an 11 year old girl, of a large, dark brown hairy nevus involving all of the arm and the proximal half of the forearm. The cutting and application of skin grafts and the technic of controlling postoperative edema are also shown. Cosmetic results after fourteen months are observed.
16 mm., sound, color, 20 min.

Early Plastic Repair of Finger Tip Injuries in Children (22-717)
Bromley S. Freeman, M. D.

Severe finger tip injuries due to lacerative, crushing or avulsive forces are extremely common in children. This film depicts a representative case of blunt, subtotal avulsion and crushing of the distal phalanx of a child's index finger. The film details the preparation of the surgical field, the evaluation of tissue regeneration potential, excision of damaged tissue, choice of replacement (split and full-thickness grafts; cross-finger flaps and abdominal pedicles), amount of tissue replacement, suture material, surgical technic, wound covering and hemostatic dressing, suturing and splinting, subsequent elevation and rest, and evaluation prior to detachment of flaps. The film illustrates delicate—and sometimes bold—surgical technics which take advantage of the great healing ability and recuperative powers of the young patient.
16 mm., sound, color, 30 minutes

Thumb Reconstruction by Toe Transfer (22-736)
Bromley S. Freeman, M. D.

Because the loss of a thumb reduces the functional potential of the hand by some 50%, the reconstruction of this digit has been the object of long, extensive and often brilliant effort. This film illustrates the successful transplantation of the second toe to the residual head of the proximal phalanx. The seven-year follow-up shows excellent growth of the distal phalanges and shaft. Several additional cases are reviewed in some detail.
16 mm., sound, color, 15 minutes

Surgical Creation of a Sensitive Thumb (22-701)
Hugh A. Johnson, M. D.

The film presents a detailed demonstration of the author's technic in creating a sensitive thumb for a 2 1/2 year old child with a congenital absence of the distal two-thirds of the left hand. Follow-up pictures show the utility and durability of the reconstructed digit.
16 mm., sound, color, 10 minutes.

Microdermagrafting Procedure (22-702)
C. Parker Meek, M. D.

This film illustrates the use of the Meek-Wall Microdermatome in the treatment of patients with severe, extensive burns, where there is a great need to cover a large area of burn with a small amount of donor skin. Details of the technic—as well as the results obtained are shown.
16 mm., sound, color, 10 minutes

Radical Resection of the Ischial Tuberosity (22-700)
J. Treacy O'Hanlon, M. D.

Radical resection of the ischial tuberosity as an effective means to hasten the total rehabilitation process of the paraplegic is reserved by the author for those who show

(Continued on Page 196)

Everyday Staph Varieties Now Immune To Penicillin

The common street variety of staphylococcal infections have developed resistance to the commonly used drug treatment—Penicillin G—and doctors are urged to switch to other drugs in treating this widespread infection in a research report in a recent issue of the *Journal of the American Medical Association.*

It had been known for some years that the staph strains circulating in hospitals had become resistant to Penicillin G, but most physicians had assumed that it was still useful to treat common staph infections seen in the office or in out-patient clinics.

A Washington, D. C., study—utilizing a sensitive new test for drug-resistant staph—found that this is no longer true.

The Washington research group tested 133 children seen as outpatients or in private practice for resistance to Penicillin G. Resistance to staph strains common in the community was 84 per cent. Resistance to hospital strains was 95 per cent.

The resistance has developed in the last 20 years, says the report. It quotes studies showing that in 1957 the resistance was 16 per cent, and ten years later it had risen to 38 per cent. However, it's possible that the less sensitive tests of those years did not reveal the true figures.

Increase in the resistance pattern "seems to parallel the intensive and often indiscriminate use of antibiotics outside the hospital. Also, the hospital has served as a locus for 'lateral' dissemination of resistant strains into the community."

Staph germs are widespread among the population. The Washington group also tested 309 healthy elementary school children, and found that 47 per cent were carrying the infections in their nasal passages.

The report notes that many laboratories still are not using the new, ultra-sensitive test—known as the Kirby-Bauer technique. Only seven of 14 hospitals polled in the Washington area used the new test. Thus, "many strains of staphylococci will be reported as susceptible while in reality they are resistant."

"In view of the extremely high incidence of resistance both among street and hospital strains of staphylococci, the question logically arises whether penicillin should be used at all in suspected or proven staph disease."

Fortunately for the patients, other effective drugs are available.

"The routine use of dicloxacillin, a cephalosporin, or clindamycin would be preferable therapy since all three agents are 98 to 100 per cent effective. Erythromycin can also be regarded as a useful agent, although approximately 8 per cent of staph strains are resistant to this antibiotic."

WOMAN'S AUXILIARY

(Continued from Page 169)

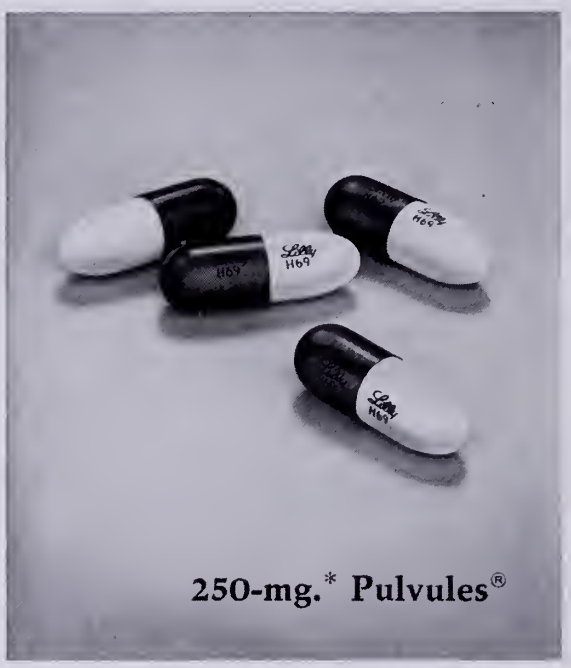
ties educated us and the community concerning health needs. There has also been a growing interest in legislation that affects medicine. This is partly due to our times and also due to the dynamic way legislation is presented by our Legislative Chairman, Mrs. Gilder Wideman. She really keeps members feeling "in the know."

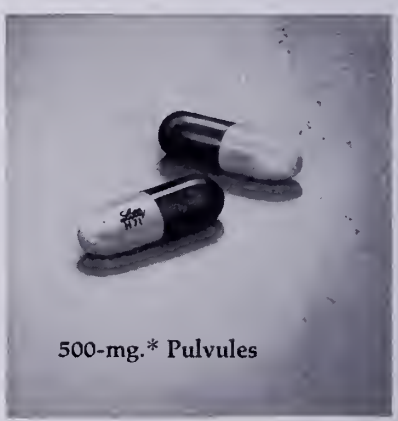
"Happy" members attract new members. We urge each County Auxiliary to contact all eligible doctors' wives for a "get acquainted" meeting each year and thanks to Southern Hospitality they are really welcomed. This has been emphasized by our membership chairman Mrs. J. E. Dunn Jr.

Possibly the greatest reason for our growth has been the intelligent enthusiasm of our State Auxiliary Presidents and Chairmen for the last few years. Of course my experience has been limited to this period. They have been charming women who are dedicated to the community and family health of our state and have had the ability to make a worthwhile endeavor pleasant.

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Volume 44 October, 1974 Number 4

Cooperative Study On Osteogenic Sarcoma

Andrew B. Weiss, M.D.
Birmingham, Alabama

INTRODUCTION

We have begun a multi-disciplined approach to the study of osteogenic sarcoma at the University of Alabama Hospitals. The objectives of these studies will be to integrate the immunological, chemotherapeutic, surgical, and therapeutic radiological approaches to the identification and treatment of tumors primary to bone with special emphasis on osteogenic sarcoma. These studies will apply basic concepts of immunology to the clinical prognosis and treatment of osteogenic sarcoma. Only through such an integrated attack can we improve its dismal prognosis.

The five year survival rate for osteogenic sarcoma treated in the routine fashion has ranged between five and 20 per cent. We are aware of extremely few survivors in the Birmingham area in the last 25 years.

We are at present considering the possibility of a three step treatment of osteogenic sarcoma. We feel that the initial phase would consist of amputation of the affected limb at a site proximal to the tumor. This will remove the primary tumor load. Immediately after amputation (within one week) we would start a very active chemotherapeutic program on these patients. At present we are using DTIC, high dosage methotrexate-citrovorum factor rescue[1], adriamycin, and cytoxan. Hopefully much of the remaining tumor within the body will be removed by chemotherapy within six to nine months. At that point we should consider the use of immunotherapy to remove any remaining tumor cells. We eventually plan to randomize combinations of therapy in our patients. These will include amputation plus chemotherapy alone, amputation plus immunotherapy alone, and finally a combination of all three. To accumulate significant data we need as many patients as possible.

We are attacking the problem on two levels at the University of Alabama Hospitals. The primary level at this time is a murine model system. We are testing the various immunological and chemotherapeutic regimens in the murine model. There is an established osteogenic sarcoma in C3H mice. Minimal study has been done on this tumor model. The murine tumor behaves much like its human counterpart. It metastasizes primarily to the lung with some recurrence at the local amputation site. The secondary level of work will be on the human tumor. It is important to involve the patients as early as possible in the study. This generally means before a biopsy has been performed. The University of Alabama in Birmingham has been designated as one of the primary tumor centers in the United States. We have clinical funds available at this point for hospitalization of these patients.

Presented at the 113th Annual Session of the Medical Association of the State of Alabama on April 19, 1973 in Huntsville, Alabama.

The chemotherapeutic modalities available today have markedly improved the survival potential of the patient with osteogenic sarcoma. We have the oncologic staff at this medical center to administer these modalities. The orthopedic staff has a strong interest in working with these patients. Our goal is not to intrude into your private practices of medicine, but to advance knowledge and improve patient care. We also do readily admit that some of the work that will be done will be developmental. There is no other way to gleen new information on diseases that have such a poor prognosis as osteogenic sarcoma and the other sarcomas of bone. I emphasize that we carefully explain to the patient and relatives that some of these treatments are in early stages of development. We have gotten no refusals on any treatment we have felt was indicated.

CLINICAL EVALUATION

I would like to review some aspects of the clinical evaluation that we will be performing on patients with osteogenic sarcoma. We are hoping that at the first suspicion of tumor you will refer the patients for evaluation. We have no objection to your sending patients in whom the diagnosis is uncertain. We would prefer to find false positives rather than to miss patients with primary bone tumors. Patients will be accepted into our program at any stage of their disease.

Since we hope that the definitive diagnosis will be made at our institution, the criteria for admission must be very broad. Any patient with localized pain and swelling, a palpable mass, and/or X-ray suspicion of primary tumor of bone should be considered a suitable candidate. The patient will be treated as a semi-emergency. That is, the patient will be prepared for biopsy as quickly as possible. Preoperative evaluation of the patient will include X-rays of both the primary site and the lungs, tomograms of the primary site and the lungs, routine bone surveys, and bone scans. Routine laboratory studies will be done including hemagram, urinalysis, calcium, phosphorus, alkaline phosphatase, and erythrocyte sedimentation rates.

Concomitantly, an evaluation of the patient's immunological competency pre and postoperatively will be performed. Studies will include the presence or absence of blocking factors, the screening of patient serum for antibody against osteogenic sarcoma antigen, and peripheral T cell and B cell levels. It should be added that we routinely carry out a preoperative consultation between the orthopedist, oncologist, radiologist, pathologist, and immunologist.

DIAGNOSIS

A typical clinical case of osteogenic sarcoma is seen in a male who presented with



Figure 1—Osteosarcoma of distal femur, courtesy of Dr. James Johnston, see 2. of bibliography.

a painful mass just above the knee (Fig. I)[2]. The mass had been noticed approximately four months before this examination. The initial X-rays are seen in Figure II[2]. The patient had a slightly elevated temperature



Figure 2—Osteosarcoma of distal femur, courtesy of Dr. James Johnston, see 2. of bibliography.

of 99.5° F with an elevated ESR of 35 and a normal white count. His alkaline phosphatase was slightly elevated. On physical examination he demonstrated a firm tender mass in his distal thigh with no evidence of local erythema or cellulitis to suggest an infectious process. No adenopathy could be palpated in the inguinal region. There was dilitation of the veins in the subcutaneous area overlying the tumor mass. The patient had lost weight recently and stated that his appetite had decreased over the past several weeks. The X-ray (Fig. II)[2] is as close to diagnostic as one can see. One is impressed by the large tumor mass which surrounds the distal femor (which is the most common area for localization of osteogenic sarcoma). One is also impressed by the so-called sunburst appearance of the tumor with radiopaque streaks radiating from the central focus in the distal femoral metaphasis. It should be noticed that the central portion of the tumor is most opaque in nature, and there is less ossified material as one goes to the periphery. This will help to differentiate the lesion from myositis ossificans which shows the reverse orientation. There is no so-called Codman's reactive triangle in this X-ray. It should be remembered that the Codman triangle is not a reliable manifestation of osteogenic sarcoma. Any lesion that strips the periosteum will produce one.

Another patient (Fig. III) demonstrates a classic Codman's triangle. One sees this triangle in the proximal area of the figure. This particular patient was a 26 year old white female who had just delivered a healthy



Figure 3—Codman's Triangle (arrow designates area in osteosarcoma).

child four and one-half months previously. She had noted some pain and tenderness about her knee for the last 12 weeks, went to a local physician, and was referred to us for immediate evaluation. Work-up included arteriograms, one of which is shown (Fig. IV). We also did routine chest films, whole lung tomograms, and bone surveys which



Figure 4—Arteriogram of osteogenic sarcoma of distal femur.

failed to reveal any evidence of metastases. Alkaline phosphatase levels were elevated. Calcium and phosphorus were within normal limits. Appropriate high above knee amputation was carried out, and the patient was begun on chemotherapy five days post amputation. She is only five months post-amputation at this time, but is still free of tumor. It should be noted that the average time to metastasis is eight months.

A proper biopsy must be obtained, and it is probably wise for the pathologist to be in the operating room when this is done. It is unwise for a biopsy to be done in one hospital and sent to a pathologist in another hospital if this can be at all avoided. This is one of the many reasons why bone tumors should be treated in centers where a complete complement of people experienced in their management are found.

A low power photomicrograph (Fig. V)[2] of an osteogenic sarcoma demonstrates an area of rapid anaplastic growth. These cells

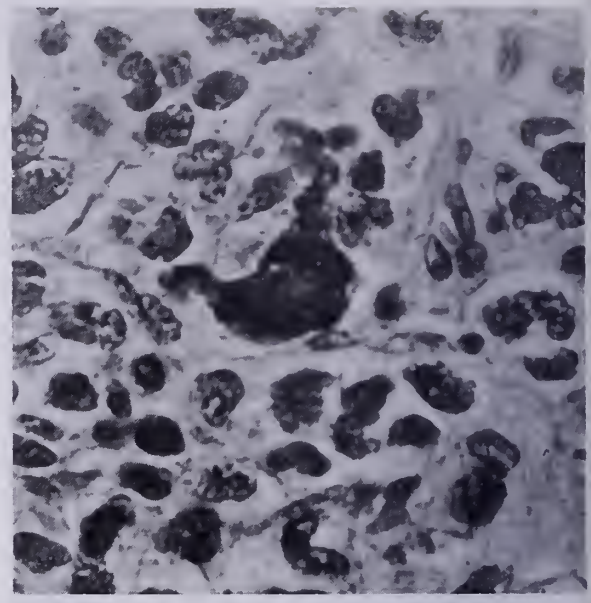


Figure 5—Microscopic section of typical osteosarcoma, courtesy of Dr. James Johnston, see 2. of bibliography.

are obviously malignant. Close observation reveals an extracellular substance which stains eosinophilic with H and E stain. This is osteoid formation. It can be seen that this osteoid is being formed by the surrounding malignant cells which can be identified as osteoblasts. When one sees this combination of malignant osteoblasts and osteoid formation a diagnosis of osteogenic sarcoma can be made.

An X-ray (Fig. VI)[2] of a patient with a large metastatic lesion in the lung is presented. There is a great variation in treatment of these lung metastases. Some recent work at Memorial Hospital in New York has demonstrated that it is advisable to remove them if at all possible. I have the same philosophy and would recommend that they be removed if they are single and can be completely resected. Even if there is a second solitary lesion appearing later, I would still advocate its removal.

The peak incidence[3] of the osteosarcoma is in the second and third decades of life. Males outnumber females. The most common sites of tumor formation are about the knee. When osteogenic sarcoma is seen in an older age group it will usually be associated with a pre-existing primary dysplasia such as



Figure 6—Osteosarcoma metastatic to lung, courtesy of Dr. James Johnston, see 2. of bibliography.

Paget's Disease or fibrous dysplasia. It can also be seen secondary to radiation.

The available statistics on survival rates of osteogenic sarcoma are at great odds. The Mayo Clinic and Memorial Hospital series show about 17 per cent survival. Other series show that if the tumor is in the distal femur the five year survival rate may be below three per cent, whereas if it is in the proximal tibia it might approach ten per cent.

POSTOPERATIVE PROGRAM

Cooperative Program

A combined postoperative program will be carried out under the divisions of Orthopedic Surgery, Immunology, Oncology, and Rehabilitation Medicine.

Routine follow-up examinations will include chest films, alkaline phosphatase levels, bone surveys, and scans. Screening of the patient's immunological status as outlined in the clinical protocol will be carried out. We plan to correlate the immunological data with the patient's clinical picture. The immunological laboratory data will be used to improve clinical care.

The rehabilitation medicine program is extremely comprehensive, including psychological, sociological, and economic evaluations, if necessary. Physical therapy will begin immediately post amputation. As soon as possible stump exercises and upper extremity strengthening programs will start. Crutch ambulation will be taught in the early postoperative period. Prosthetic fittings will be carried out as stump conditions permit, probably within eight weeks of surgery.

Chemotherapy

The chemotherapeutic treatment for osteosarcoma has changed drastically in the last few years. Two recent papers that were presented in March of 1974 at the Sixty-Fifth Annual Meeting of the American Association for Cancer Research held in Houston, Texas, show encouraging results. A paper presented by Charles B. Pratt[4] et al, from St. Jude Children's Hospital in Memphis states that with intensive chemotherapy no evidence of metastases was noted in five patients for periods of four, four, seven, nine, and 11 months. They feel that the anti-metabolites have either changed the natural course of the disease or that microfoci of metastases have been eradicated by the adjuvant chemotherapy.

Sutow[5], et al, from the M. D. Anderson Hospital state that children receiving a combination of anti-metabolites over a 72 week period show a drastic reduction in metastases. Eighteen patients have been studied. Ten (55%) remained free of disease 15 months or longer. In comparison, data from 33 patients with osteosarcoma treated without intensive chemotherapy at M. D. Anderson, prior to activitation of the study, indicate that 29 of 33 (88%) developed metastases within 15 months from time of amputation. There were only two (or 6%) long term survivors in the group not treated with chemotherapy. This

recent data should be very encouraging to us all. It again emphasized the importance of these patents being treated in centers where work in this field is being done. There is no question that a great breakthrough is approaching, and many of the children that we have seen die in the past with osteogenic sarcoma will no longer do so.

Recurrences

We will utilize both chemotherapy and immunotherapy for treatment of recurrence. Work along these lines will depend on experience gained in both the murine model and the patients as the study proceeds. We will utilize radiation for local recurrence only.

IMMUNOLOGICAL LABORATORY STUDIES

The specific objectives of our study will be:

A. To develop means to gauge the cellular immune status of patients with osteosarcoma with respect to their neoplasm prior to and after its removal.

B. To establish rapid in-vitro techniques to determine if blocking factors can be detected, and if they can be used to evaluate the prognosis of the disease in patients.

C. To carry out in vivo studies in mice bearing osteosarcoma in order to determine if the mouse model can be used as a prototype to the human condition for the study of chemotherapy and immunotherapy.

D. To perform antigenic analysis of both human and mouse neoplasms for the purpose of isolating a specific antigen related to osteogenic sarcomas. Such an antigen may be useful in (1) development of monospecific antibodies to localize in tumor site, and (2) monitoring tumors in the body before and after surgery (if it can be established that such antigens are released into the circulation).

A diagrammatic sketch (Fig. 7) of the interactions between the clinical and research laboratories is presented to solidify some of the points. As can be seen, there is an ongoing clinical program for the treatment of

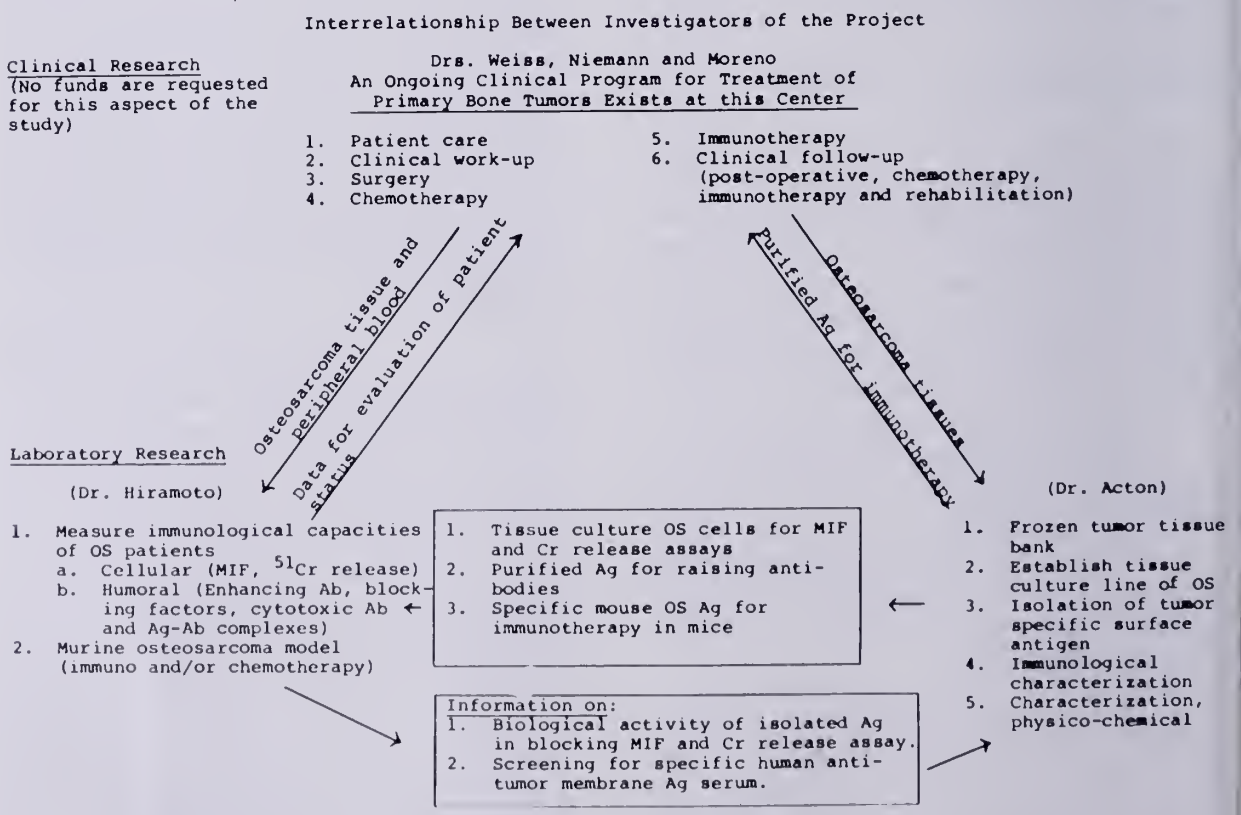


Figure 7—Program: Overall View.

primary bone tumors at the Medical Center. This includes patient care, clinical diagnosis, surgery, chemotherapy, and clinical follow-up. The clinical units will supply osteosarcoma tissues to both of the basic science laboratories. The immunological laboratories will utilize these materials to measure immunological capacities of the patient. The tissue culture laboratories will establish a frozen tumor tissue bank, isolate tumor specific surface antigens, and characterize immunologic and physical-chemical properties of the antigen. A purified antigen, when it becomes available, will be useful in clinical work.

The immunological laboratories and tissue culture laboratories will be collaborating together throughout the study. Dr. Acton will supply tissue culture facilities and osteogenic sarcoma cells for Dr. Hiramoto's work. He will also supply purified antigen for raising antibody levels and specific mouse osteogenic sarcoma antigen for immunotherapy in mice. Dr. Hiramoto will be inputting information on the biological activity of isolated antigen. He will also be screening for specific anti-tumor membrane antigen activity.

IMMUNOLOGICAL RESPONSE

It has been proven that there is an immunological response to tumors. In certain select cases the balance can be altered in favor of the host. There are tumor specific antigens. Prehn and Main[6] (1957) showed that a mouse which was immunized against a specific tumor would reject a graft of that tumor, but would accept a skin graft from that same animal in which the graft originated. Morton has repeatedly demonstrated that both malignant melanoma and osteogenic sarcoma have common antigens, suggesting a viral etiology for both tumors. Mitchinson[7] showed (1954) that lymphocytes mediate the primary response to normal transplantation antigens, and that one can transfer this immunity by transferring lymphocytes from one animal to another (*adoptive immunity*). It was then shown that lymphocytes can kill tumor cells to which they had been previously exposed. Thomas and Burnet then proposed the theory that cellular immunity exists as a "surveillance system" against neoplastic mutation. It is now felt that both cellular (lymphocyte) and humoral (antibody) systems are involved in the immune response elicited by tumor.

"Blocking factors" have also been implicated in the immunological picture. These factors are now thought to be tumor antigen or antigen-antibody complexes which bind to the sensitized lymphocyte and make it unable to react with and kill the tumor cell. These "blocking factor" levels are high when tumor is present (probably representing products shed from tumor cells) and low in the absence of tumor. It is hoped that assaying for these "blocking factors" may enable one to detect early tumor recurrence.

IMMUNOLOGY—CLINIC DATA

Three of the clinical groups involved with immunological manipulation of patients with osteogenic sarcoma are:

1. Marcove[8]—Memorial Hospital, New York City

2. Enneking[9]—University of Florida, Gainesville

3. Morton[10]—University of California, Los Angeles

Marcove stated that the five year survival rate in patients with localized, operable osteosarcoma at Memorial Hospital was 17.4 per cent. He then embarked on an attempt to augment the patients' immunity after amputation by injection of autogenous tumor. No chemotherapy or radiotherapy was employed. All patients were under 25 years of age, and no metastases were noted before onset of treatment. If metastasis occurred, therapy was judged to be a failure. Fifteen patients have now been followed for two or more years. Six of the 15 (40%) are free of metastasis at least two years post onset of treatment.

Enneking has treated at least 28 patients with adoptive immunotherapy. Four had evidence of metastatic disease at the beginning

of treatment. These four are all dead. The 24 other patients showed no evidence of metastatic disease. Twelve of 19 treated for more than 12 months are alive without evidence of disease. Five of ten patients treated for two years or more are free of evident disease. Though these numbers are too small to make definite conclusions, these patients are doing better than those that would have been treated by amputation alone.

Morton had reported a high incidence of antibody to sarcoma specific antigens in patients with osteosarcoma. Patients who remain free of disease for several years maintain high antisarcoma antibody levels. He suggests that one may be able to manipulate these antibody levels and so protect the patient.

CONCLUSION

As can be seen, many avenues are presently being employed in the study of osteogenic sarcoma. Not all will prove fruitful. Many preliminary results are encouraging and demand further laboratory and clinical evaluation.

The author wishes to thank Lynita Caudill for her assistance in preparing this manuscript.

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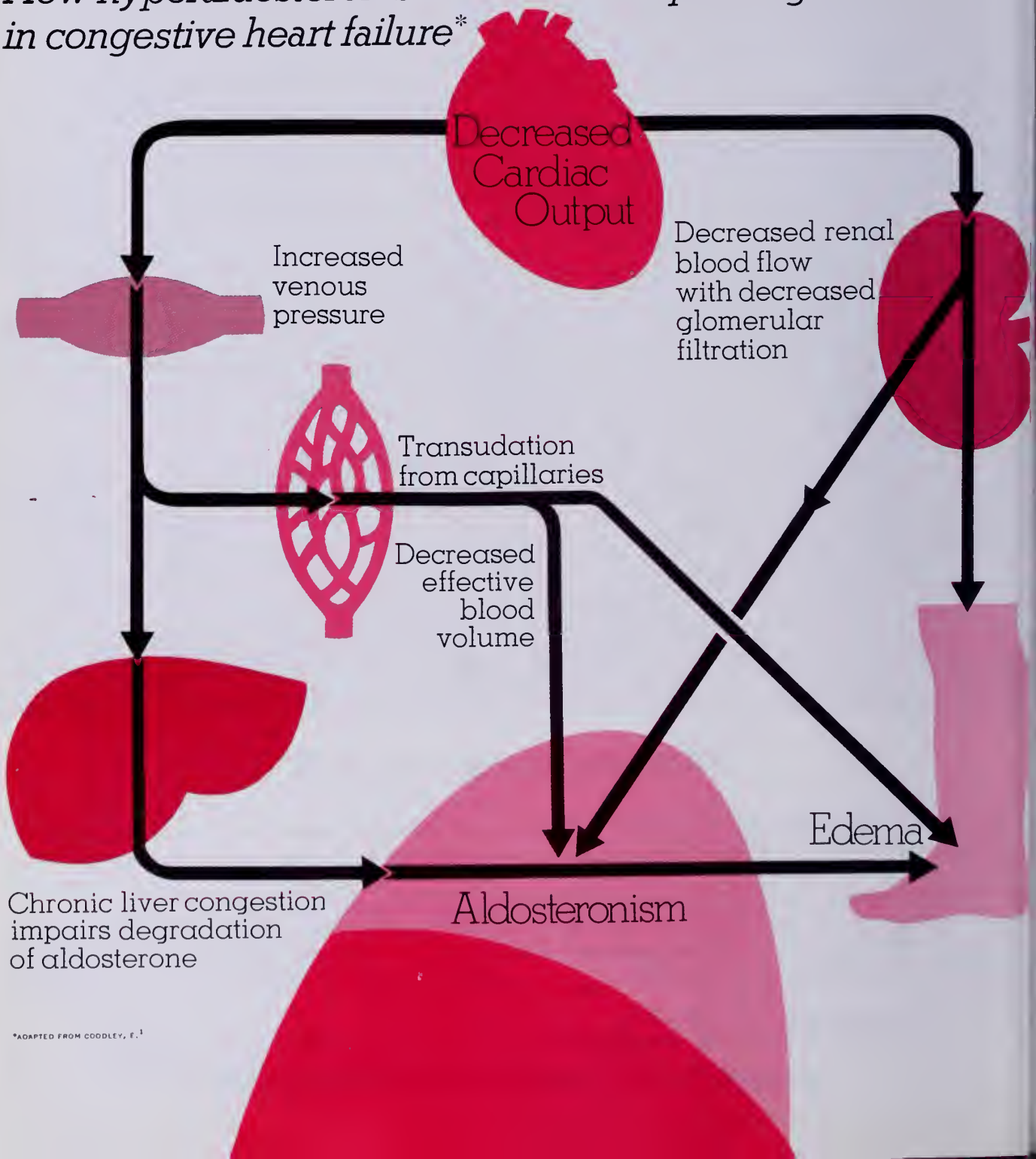
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- Can be administered daily as basic therapy with the additional agent (furosemide or ethacrynic acid) given every second or third day.
- Aldactone plus "A.D.D." schedule minimizes potassium deficiency and potentiates effect of "add-on" diuretic.[2]
- Avoids acute volume depletion and aldosterone rebound.[2]

3. As a daily diuretic in combination with a daily dose of a thiazide
- Permits daily additive diuretic effect while maintaining potassium balance.

Indicatians—Essential hypertension; edema or ascites of congestive heart failure, cirrhasis of the liver and the nephrotic syndrome; idiopathic edema. Some patients with malignant effusians may benefit from Aldactone (spironolactone), particularly when given with a thiazide diuretic.

Cantraindicatians—Acute renal insufficiency, rapidly progressing impairment of renal functian, anuria and hyperkalemia

Warnings—Potassium supplementation may cause hyperkalemia and is not indicated unless a glucocorticoid is also given. Discontinue potassium supplementation if hyperkalemia develops. **Usage af any drug in wamen af childbearing age requires that the potential benefits af the drug be weighed against its passible hazards ta the mather and fetus.**

Precautians—Patients should be checked carefully since electrolyte imbalance may accur. Although usually insignificant, hyperkalemia may be serious when renal impairment exists; deaths have occurred. Hyponatremia, manifested by dryness of the mouth, thirst, lethargy and drowsiness, together with a low serum sodium may be caused ar aggravated, especially when Aldactone is combined with other diuretics. Elevatian of BUN may occur, especially when pretreatment hyperazotemia exists. Mild acidosis may accur. Reduce the dosage of other antihypertensive drugs, particularly the ganglionic blocking agents, by at least 50 percent when adding Aldactone since it may potentiate their action.

Adverse Reactians—Drowsiness, lethargy, headache, diarrhea and other gastrointestinal symptams, maculopapular or erythematous cutaneous eruptions, urticaria, mental confusion, drug fever, ataxia, gynecomastia, inability to achieve or maintain erection, mild androgenic effects, including hirsutism, irregular menses and deepening voice. Adverse reactions are infrequent and usually reversible.

Dasage and Administratian—For **essential hypertensian** in **adults** the daily dosage is 50 to 100 mg. in divided doses. Aldactone may be combined with a thiazide diuretic if necessary. Continue treatment for two weeks or longer since an adequate response may not occur sooner. Adjust subsequent dasage according to response of patient

Far edema, ascites or **effusians** in **adults** initial daily dosage is 100 mg. in divided doses. Continue medication for at least five days to determine diuretic response; add a thiazide or organic mercurial if adequate diuretic response has not occurred. Aldactone dosage should not be changed when other therapy is added. A daily dosage of Aldactone considerably greater than 75 mg. may be given if necessary.

A glucocorticoid, such as 15 to 20 mg. of prednisone daily, may be desirable for patients with extremely resistant edema which does not respond adequately to Aldactone and a conventional diuretic. Observe the usual precautions applicable to glucocorticoid therapy; supplemental potassium will usually be necessary. Such patients frequently have an associated hyponatremia—restriction of fluid intake to 1 liter per day or administration of mannitol or urea may be necessary (these measures are contraindicated in patients with uremia or severely impaired renal function). Mannitol is contraindicated in patients with congestive heart failure, and urea is contraindicated with a history or signs of hepatic coma unless the patient is receiving antibiotics orally to "sterilize" the gastrointestinal tract.

Glucocorticoids should probably be given first to patients with nephrosis since Aldactone, although useful for diuresis, will not directly affect the basic pathologic process.

For **children** the daily dosage should provide 1.5 mg. of Aldactone per pound of body weight.

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The Role of the Detail Man

Opinion & Dialogue

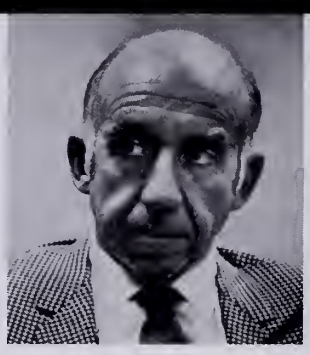


Dr. Willard Gobbell
Family Physician
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I think that most general practitioners in this area feel as I do about tne detail man. Over the years I have gotten to know most of the men who visit me regularly and they in turn have become aware of my particular interests and the na- ture of my practice. They, there- fore, limit their discussion as much as possible to the areas of interest to me. Since I usually see the same representative again in future visits, it is in his best interest to supply me with the most honest, factual, as well as up-to-date information about his products.



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Let me touch on how I person- ally perceive the role of the sales representative. These men reach large numbers of health profes- sionals. Thus they could be—and at times actually are—disseminators of useful information. They could consistently serve a real edu cational function in their ability to discuss their products.

At present they do distribute printed material, brochures and pamphlets—some of it scientific- ally sound and therefore truly use- ful—as well as some excellent film produced by the pharmaceutical industry. When they function in thi

He a Source of Information?

Yes, with certain reservations. ıe average sales representative ıs a great fund of information ıout the drug products he is re- onsible for. He is usually able to swer most questions fully and telligently. He can also supply prints of articles that contain a eat deal of information. Here, ɔ, I exercise some caution. I usu- y accept most of the statements d opinions that I find in the pers and studies which come ɔm the larger teaching facilities. goes without saying that a physi- an should also rely on other urces for his information on armacology.

laining of Sales Representatives

Ideally, a candidate for the sition as a sales representative a pharmaceutical company ould be a graduate pharmacist ıo has a questioning mind. I don't nk this is possible in every case, d so it becomes the responsibility of the pharmaceutical company to train these individuals comprehensively. It is of very great importance that the detail man's knowledge of the product he represents be constantly reviewed as well as updated. This phase of the sales representative's education should be a major responsibility of the medical department of the pharmaceutical company.

I am certain that most of these companies take special care to give their detail men a great deal of information about the products they produce—information about indications, contraindications, side effects and precautions. Yet, although most of the detail men are well informed, some, unfortunately, are not. It might be helpful if sales representatives were reassessed every few years to determine whether or not they are able to fulfill their important function. Incidentally, I feel the same way about periodic assessments of everyone in the health care field, whether they be general practitioners, surgeons or salesmen.

Value of Sampling

I personally am in favor of limited sampling. I do not use sampling in order to perform clinical testing of a drug. I feel that drug testing should rightly be left to the pharmacology researcher and to the large teaching institutions where such testing can be done in a controlled environment.

I do not use samples as a "starter dose" for my patients. I do, however, find samples of drugs to be of value in that they permit me to see what the particular medication looks like. I get to see the various forms of the particular medication at first hand, and if it is in a liquid form I take the time to taste it. In that way I am able to give my patients more complete information about the particular medications that I prescribe for them.

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cpacity they are indeed useful; rticularly in the fact that they sseminate broadly based educa- nal material and serve not just "pushers" of their drugs.

e Other Side of the Coin

Obviously, the pharmaceuti- companies are not producing all s material as a labor of love— ey are in the business of selling ɔducts for profit. In this regard e ambitious and improperly moti- ed sales representative can ert a negative influence on the ɔcticing physician, both by pre- ıting a one-sided picture of his ɔduct, and by encouraging the ɔctitioner to depend too heavily drugs for his total therapy. In ese ways, the salesman has often torted objective reality and termined his potential role as an ucator.

e Industry Responsibility

Since the detail man must be information resource as well as epresentative of his particular rmaceutical company, he ould be carefully selected and thoroughly trained. That training, perforce, must be an ongoing one. There must be a continuing battle within and with the pharmaceutical industry for high quality not only in the selection and training of its sales representatives, but also in the development of all of its promotional and educational material.

The industry must be ready to accept constructive as well as corrective criticism from experts in the field and consumer spokesmen, and be willing to accept independent peer review. The better educated and prepared the salesman is, the more medically accurate his materials, the better off the pharmaceutical industry, health professionals and the public—*i.e.*, the patients—will be.

Physician Responsibility

The practicing physician is in constant need of up-dated information on therapeutics, including drugs. He should and does make use of drug information and answers to specific questions supplied by the pharmaceutical representative. However, that information must not be his main source of continuing education. The practitioner must keep up with what is current by making use of scientific journals, refresher courses, and information received at scientific meetings.

The practicing physician not only has the right, but has the responsibility to demand that the pharmaceutical company and its representatives supply a high level of valid and useful information. I feel certain that if such a high level is demanded by the physician as well as the public, this demand will be met by an alert and concerned pharmaceutical industry.

From my experience, my impression is that sectors of the pharmaceutical industry are indeed ethical. I challenge the industry as a whole to live up to that word in its finest sense.

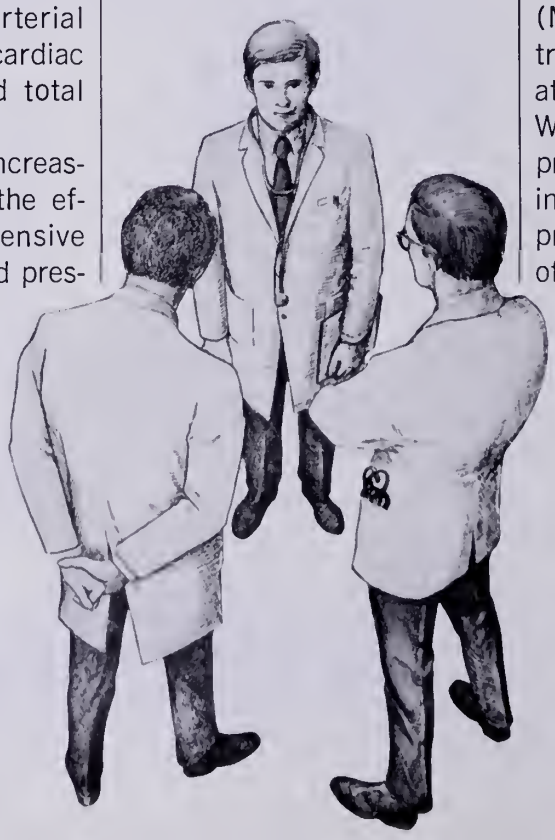
Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D.C. 20005



The more physicians consider the hemodynamics of lowering blood pressure...

Most physicians now agree on the importance of reducing blood pressure in the hypertensive patient. But high blood pressure exists, of course, only as part of a complete clinical picture. The hemodynamic profile of well-established essential hypertension is characterized by elevated arterial blood pressure, normal cardiac output, and increased total peripheral resistance.

And so, physicians are increasingly concerned with the effects of an antihypertensive agent not only on blood pressure itself but also on the hemodynamic pattern—in short, with the total effect of the drug. *Does* it indeed help lower blood pressure effectively? *Is* peripheral resistance reduced? *Are* cardiac output and renal functions maintained? And, also, is there likely to be drug-induced postural hypotension serious enough to pose a threat to the patient's cerebrovascular status?

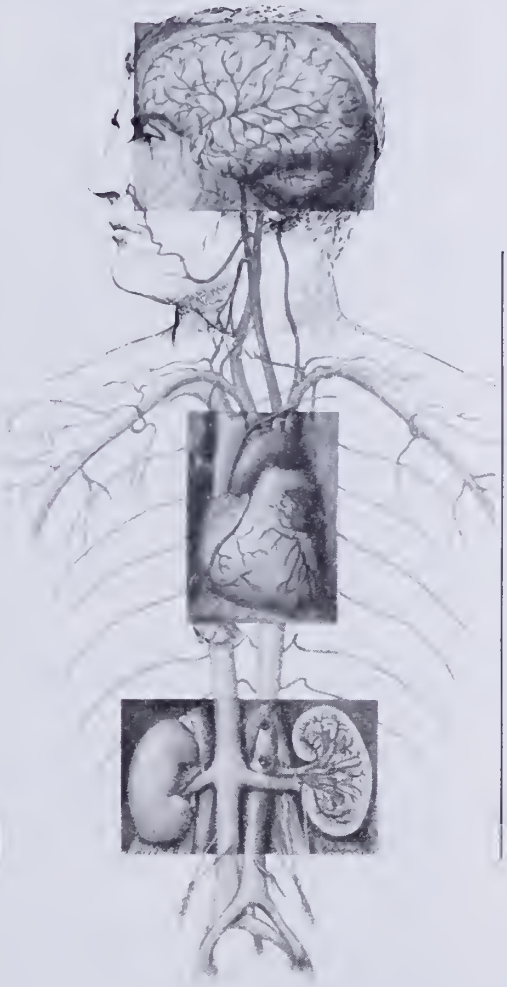


With this emphasis on overall drug performance has come a growing reliance on ALDOMET® (Methyldopa, MSD) in the treatment of sustained moderate hypertension.

With its unique hemodynamic profile, ALDOMET has drawn increasing attention and approval from physicians. First, of course, for its efficacy in

the more physicians rely on this unique antihypertensive

lowering blood pressure. But there are other considerations as well. Cardiac output is usually maintained with no cardiac acceleration; in some patients the heart rate is actually slowed. Peripheral resistance is apparently reduced. ALDOMET does not usually compromise existing renal function; it generally does not reduce renal blood flow, glomerular filtration rate, or filtration fraction. And ALDOMET usually does not cause symptomatic postural or exercise hypotension.



Contraindications include active hepatic disease and known sensitivity to the drug. Use with caution in patients with a history of liver disease or dysfunction. Not recommended in pheochromocytoma or pregnancy.

It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. For more details see the brief summary of prescribing information.

In most cases of sustained moderate hypertension

TABLETS, 250 mg and 500 mg

ALDOMET®

(METHYLDOPA | MSD)

smoothly lowers blood pressure

NEW now available in 500 mg TABLETS as well as the standard 250-mg tablets

For a brief summary of prescribing information, please see following page.

In most cases of sustained moderate hypertension

ALDOMET® (METHYLDOPA MSD)

smoothly lowers blood pressure

Contraindications: Active hepatic disease, such as acute hepatitis and active cirrhosis. Known sensitivity. Not recommended in pheochromocytoma. Unsuitable in mild or labile hypertension responsive to mild sedation or thiazide therapy. Use cautiously in patients with history of previous liver disease or dysfunction.

Warnings: It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. Read this section carefully to understand these reactions.

With prolonged methyldopa therapy, 10% to 20% of patients develop a positive direct Coombs test, usually between six and twelve months of therapy. Lowest incidence is at daily dosage of 1 g or less. This on rare occasions may be associated with hemolytic anemia, which could lead to potentially fatal complications. One cannot predict which patients with a positive direct Coombs test may develop hemolytic anemia. Prior existence or development of a positive direct Coombs test is not in itself a contraindication to use of methyldopa. If a positive Coombs test develops during methyldopa therapy, determine whether hemolytic anemia exists and whether the positive Coombs test may be a problem. For example, in addition to a positive direct Coombs test there is less often a positive indirect Coombs test which may interfere with cross matching of blood.

At the start of methyldopa therapy, it is desirable to do a blood count (hematocrit, hemoglobin, or red cell count) for a baseline or to establish whether there is anemia. Periodic blood counts should be done during therapy to detect hemolytic anemia. It may be useful to do a direct Coombs test before therapy and at six and twelve months after the start of therapy. If Coombs-positive hemolytic anemia occurs, the cause may be methyldopa and the drug should be discontinued. Usually the anemia remits promptly. If not, corticosteroids may be given and other causes of anemia should be considered. If the hemolytic anemia is related to methyldopa, the drug should not be reinstituted. When methyldopa causes Coombs positivity alone or with hemolytic anemia, the red cell is usually coated with gamma globulin of the IgG (gamma G) class only. The positive Coombs test may not revert to normal until weeks to months after methyldopa is stopped.

Should the need for transfusion arise in a patient receiving methyldopa, both a direct and an indirect Coombs test should be performed on his blood. In the absence of hemolytic anemia, usually only the direct Coombs test will be positive. A positive direct Coombs test alone will not interfere with typing or cross matching. If the indirect Coombs test is also positive, problems may arise in the major cross match and the assistance of a hematologist or transfusion expert will be needed.

Fever has occurred within first three weeks of therapy, sometimes with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first two to three months of therapy. Rarely fatal hepatic necrosis has been reported. These hepatic changes may represent hypersensitivity reactions; periodic determination of hepatic function should be done particularly during the first six to twelve weeks of therapy or whenever an unexplained fever occurs. If fever, abnormalities in liver function tests, or jaundice appear, stop therapy with methyldopa. If caused by methyldopa, the temperature and abnormalities in liver function characteristically have reverted to normal when the drug was discontinued. Methyldopa should not be reinstituted in such patients.

Rarely, reversible reduction in leukocyte count with primary effect on granulocytes has been seen. Reversible thrombocytopenia has occurred rarely. When used with other antihypertensive drugs, potentiation of antihypertensive effect may occur.

Use in Pregnancy and Childbearing Age—Not recommended in pregnancy. In women of childbearing age, weigh potential benefits against possible fetal hazards.

Precautions: Methyldopa may interfere with measurement of: uric acid by the phosphotungstate method, creatinine by the alkaline picrate method, and SGOT by colorimetric methods. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, spuriously high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. Stop drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Patients may require reduced doses of anesthetics; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension has occurred after dialysis in patients on methyldopa because the drug is removed by this procedure.

Adverse Reactions: Sedation, usually transient, may be seen during initial therapy or when dosage is increased. Headache, asthenia, or weakness may be noted as early, transient symptoms. Symptoms associated with effective lowering of blood pressure are occasionally seen and include dizziness, lightheadedness, and symptoms of cerebrovascular insufficiency. Angina pectoris may be aggravated. Symptoms of orthostatic hypotension may occur; if symptoms occur, reduction of dosage is suggested. Bradycardia, nasal stuffiness, mild dryness of mouth, and gastrointestinal symptoms including distention, constipation, flatus, and diarrhea occur occasionally; these generally can be relieved by reducing dosage. Nausea and vomiting have been reported in only a few patients. Sore tongue or "black tongue," pancreatitis, and inflammation of salivary glands may occur.

Weight gain and edema occur infrequently and are relieved by administering a thiazide diuretic; if edema progresses or signs of pulmonary congestion appear, discontinue drug. A rise in BUN has been observed. Other rare reactions include breast enlargement, lactation, impotence, decreased libido, skin rash, mild arthralgia, myalgia, paresthesias, Bell's palsy, parkinsonism, psychic disturbances including nightmares, reversible mild psychoses or depression. Urine exposed to air after voiding may darken because of breakdown of methyldopa or its metabolites.

Note: Dosage should be limited initially to 500 mg daily when following previous antihypertensive agents other than thiazides. Maximal recommended daily dose is 3.0 g. Patients with impaired renal function may respond to smaller doses than patients with normal kidney function. Syncope in older patients has been related to increased sensitivity in those with advanced arteriosclerotic vascular disease; this may be avoided by lower doses. Tolerance occasionally seen either early or late, but more likely between second and third month after initiation of therapy; increased dosage or combined therapy with a thiazide frequently restores effective control.

How Supplied: Tablets, containing 250 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 1000; Tablets, containing 500 mg methyldopa each, in single-unit packages of 100 and bottles of 100.

For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486

addendu

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MER
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DO

"Required Reading" For Your Hypertensive Patients



Because of the importance of patient motivation, Merck Sharp & Dohme offers "High Blood Pressure," a concise, pocket-sized booklet that defines the patient's own role in the management of hypertension. This booklet is available for you to give to your patients. It is designed to reinforce your explanation of hypertension and it emphasizes the importance of patient understanding in adhering to the regimen you prescribe.

Please ask your Merck Sharp & Dohme Professional Representative or write Professional Service Department, West Point, Pa. 19486 for a supply of this booklet.



around the state

Vital Statistics

Correction

Covington County

Waters, Hinton W., Opp, Alabama 36467, was erroneously reported as deceased in the August issue.

NEW MEMBERS

Covington County

Hollis, Allen Upright, b 29, mc Ala. 59, sb 59, P. O. Box 160, Andalusia, Ala. 36420. S.

Williams, Reddoch Evans, III, b 46, mc Emory 71, recip. Ga. 72, 4332 Oakmont Rd., Tallahassee, Fla. 32303. GP (Res.)

Etowah County

Keeling, John Berry, b 42, mc Alabama 72, recip NBME 73, Medical Arts Building, 303 Bay St., Gadsden, Ala. 35901. GP.

MEMBERS DECEASED

Montgomery County

McCulloch, Hugh, Montgomery, Alabama, Deceased 7/28/74

CHANGES OF ADDRESS

Coffee County

Lumpkin, Thomas R., Enterprise to P. O. Box 6291, University, Ala. 35486.

Colbert County

Bowen, Robert K., Jr., present Sheffield to 505 North Columbia Avenue, Sheffield, Ala. 35660.

Cullman County

Crocker, Francis L., Vinemont to P. O. Box 1123, Cullman, Ala. 35055.

Rowe, George T., present Hanceville to Box 347, Hanceville, Ala. 35077.

Jefferson County

Breinig, John B., Birmingham, Alabama, to St. Thomas Hospital, 2000 Hayes St., Nashville, Tenn. 37203.

Cobb, Charles G., Hollywood, Fla., to 3262 Dell Rd., Birmingham, Ala. 35223.

DelVecchio, Pasquale A., Woodward to 1600 Brookcrest Circle, Birmingham, Ala. 35226.

Kahn, Sigmond A., present Birmingham to Suite 226, Professional Office Bldg., 800 Montclair Rd., Birmingham, Ala. 35213.

Pitts, James R., Augusta, Ga. to 3341-A Avery Dr. "00", Ft. McClellan, Ala. 36205.

Pitts, William R., Birmingham to 1539 South Main St., P. O. Box 274, Graysville, Alabama 60610.

Wilson, Ollie E., Birmingham, Alabama to 3903 Granada St., Tampa, Fla. 33609.

Zenger, George H., present Louisville, Ky. to 5000 Dunregan Rd., Louisville, Ky. 40222.

Madison County

Dilworth, Thomas E., present Huntsville to 706 Adams St., S. E., Huntsville, Ala. 35801.

St. Clair County

Burgess, James H., present Springville to Drawer 227, Springville, Ala. 35146.

Sumter County

Williams, Sidney J., present Livingston to Box 1066, Livingston, Ala. 35470.

Talladega County

Smith, James W., Sylacauga to Doctors Building, Sanders St., Athens, Ala. 35611.

MEMBERS TRANSFERRED

Baldwin County

Weathers, Bobby Wayne, General Delivery, Bay Minette, Ala. 36507, From Marion County Medical Society.

Kimmich, Homer Marshall, 1907 Oak Knoll Circle, Mobile, Ala. 36607, From Mobile County Medical Society.

MEMBERS REINSTATED

Mobile County

Rudder, William Harwell, b 22, mc Ala. 52, sb 53, 5464 Government Blvd., Mobile, Ala. 36609. P.

NEW TELEPHONE NUMBERS

Graves, Robert S., Etowah 547-9850

Hollis, Allen U., Covington .....

Keeling, John B., Etowah 547-0531

Rudder, William H., Mobile 666-2797

Scanlan, Joseph M., Montgomery 262-5357

Scott, Vance, Jefferson 547-2597

Simpson, William H., Etowah 546-2838

Staggers, Rucker L., Greene 372-4035

Steinberg, Benjamin J., Etowah 547-4922

Steinberg, Morris, Etowah 547-4922

Suttle, Roger C., Jr., Etowah 547-4963

Williams, Reddoch E., III, Covington 385-9927
Area Code 904

SIGHTS AND SOUNDS

(Continued from Page 176)

chronic ulceration of the buttocks and have experienced no return of sensation below the level of the transection of the cord. The surgical technical is demonstrated in a 21 year old female paraplegic with a large ulcer refractory to healing for one year. Follow-up films demonstrate the patient's ability to walk with the use of braces.
16 mm., color, sound, 15 minutes

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Serving the medical profession since 1896.

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Memphis, Tenn.

We appreciate the Alabama physicians' support over the years and solicit your continuing confidence.

South American Cruise Announced

The Medical Association of the State of Alabama again offers a most unusual opportunity—a 14-day air-sea cruise along "THE SUNSHINE COAST OF SOUTH AMERICA." Ports of call include some of the most exciting cities in the Western World: Buenos Aires, Mar del Plata, Salvador (Bahia), Vitoria, Rio de Janeiro, Sao Paulo and Montevideo. Visits to Brazil's ultra-modern capital, Brasilia, and the great Iguassu Falls which join the borders of Argentina, Brazil and Paraguay, are among the optional excursions available.

The combination of exciting ports and comprehensive professional workshops added to the pleasure of traveling with colleagues and friends makes this cruise one you won't want to miss.

The trip has been planned by Travel Dynamics, Inc., and the medical workshop has been organized in cooperation with Seminars and Symposia, Inc.

The date of departure is January 16, 1975 from Birmingham via privately chartered Trans International Airlines "stretch" DC-8 jet direct to Salvador to board the Sun Line luxury cruise liner STELLA OCEANIS.

The South America cruise is priced from $995.00 and includes round trip jet transportation, deluxe accommodations on the cruise ship and all meals.

To reserve space, send a deposit of $150.00 per person payable to the Medical Association of the State of Alabama and mail to MASA Travel Department, 19 South Jackson St., Montgomery, Alabama 36104. Brochures are available on request to the same address or telephone 263-6441.

Is there a tablet containing *only* an expectorant and *only* Glyceryl Guaiacolate? YES!



HYTUSS TABS

1. Patient acceptable tablet dose.
2. Single entity expectorant.
3. Measured tablet dose.
4. Sugar-free tablet.

An identifiable white, scored tablet which significantly stimulates the secretion of respiratory tract fluid.

(GLYCERYL GUAIACOLATE 100mg.)



Composition: Each sugar-free compressed tablet contains glyceryl guaiacolate 100mg. **Action and Use:** This preparation utilizes the effective expectorant action of glyceryl guaiacolate which significantly stimulates the secretion of respiratory tract fluid. The increased flow of less viscid fluid favors expectoration and has a demulcent effect on the tracheobronchial mucosa. The primary usefulness of Hytuss Tabs is to promote the change from a dry, unproductive cough to a productive cough. Hytuss is therefore useful in treating coughs due to the common cold, bronchitis, laryngitis, tracheitis, pharyngitis, influenza and the measles. The expectorant action of Hytuss may also provide symptomatic relief in some chronic respiratory disorders when the patient experiences spasms of dry nonproductive coughing. **Precautions:** Extremely large amounts may cause nausea and vomiting. **Administration and Dosage:** *Adults*—1 tablet four times daily. *Children*—6 to 12 years of age; ½ tablet 3 or 4 times daily. HOW SUPPLIED: White, scored, sugar-free, tablet in bottles of 100 - 1,000 - 5,000. **Product Identification Mark:** Hy. **Literature Available:** On request.

Available through all drug wholesalers.

Hyrex

HYREX COMPANY

832 South Cooper
Memphis, Tenn. 38104

The Upper Functional G.I. Disorder

The Pseudo-ulcer

Ulcer-like symptoms: o G.I. pathology



X-ray demonstrates normal stomach.

The patient is convinced he has an ulcer. However, symptoms are not quite typical, and x-ray findings are negative. These findings and the results of additional diagnostic procedures exclude an organic basis for the patient's complaints. A diagnosis of "upper functional gastrointestinal disorder" is made, which is supported by the fact that episodes of painful symptoms coincide with episodes of excessive anxiety, as indicated by the history.

It may be useful to explain to the patient the mechanism by which emotions upset normal G.I. functioning, resulting in hypersecretion and hypermotility and thus causing such symptoms as nausea and epigastric pain. In upper functional gastrointestinal disorders, counseling by the primary physician can often help the patient understand how excessive anxiety may cause flare-ups of G.I. symptoms.

A disproportionate number of patients seen by the general practitioner suffer from functional disorders, as do more than half of those seen by the gastroenterologist.* Where milder cases may respond to counseling alone, if symptoms are severe and disabling to any degree, a suitable regimen may include medication to reduce the symptoms and the excessive anxiety that often provokes these distressing symptoms.

In these cases, Librax as an adjunct can greatly contribute to the course of therapy. Its dual action can offer relief of both painful symptoms and excessive anxiety, because each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br. The antianxiety action of Librium® (chlordiazepoxide HCl) makes Librax exceptional among drugs for certain gastrointestinal disorders associated with excessive anxiety; the clidinium bromide (Quarzan™) component furnishes dependable antisecretory-antispasmodic action. Dosage is flexible; it may be adjusted according to your patient's requirements within the range of 1 or 2 capsules three or four times daily, up to 8 capsules daily in divided doses. Please consult the complete product information regarding precautions and adverse reactions.

*Rome HP, Brannick TL: Orientation and mechanism of functional disorders; clinicophysiologic correlation, chap. 133, in *Gastroenterology*, edited by Bockus HL. Philadelphia, W.B. Saunders Company, 1965, p. 1116.

An adjunct in anxiety-related upper functional G.I. disorders

Librax®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

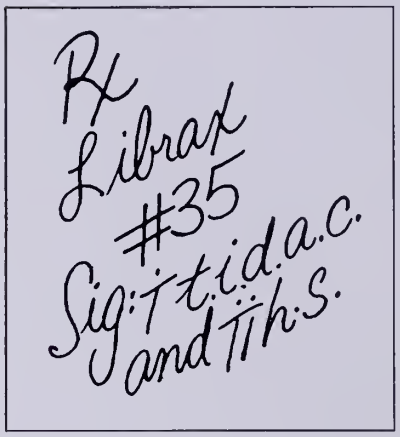
ROCHE

Please see summary of product information on following page.

An adjunct in anxiety-related upper functional G.I. disorders

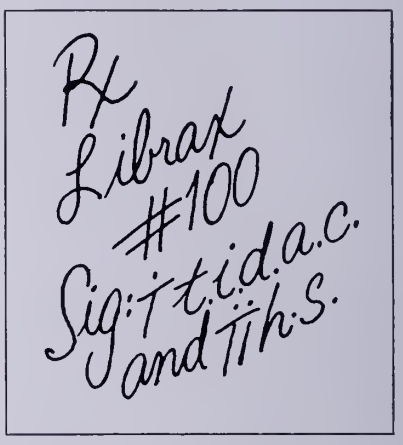
Librax®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.



Initial therapy

The initial prescription allows evaluation of patient response to therapy.



Follow-up therapy

Follow-up therapy with a prescription for 2 to 3 weeks' medication usually helps maintain patient gains.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Symptomatic relief of hypersecretion, hypermotility and anxiety and tension states associated with organic or functional gastrointestinal disorders; and as adjunctive therapy in the management of peptic ulcer, gastritis, duodenitis, irritable bowel syndrome, spastic colitis, and mild ulcerative colitis.

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

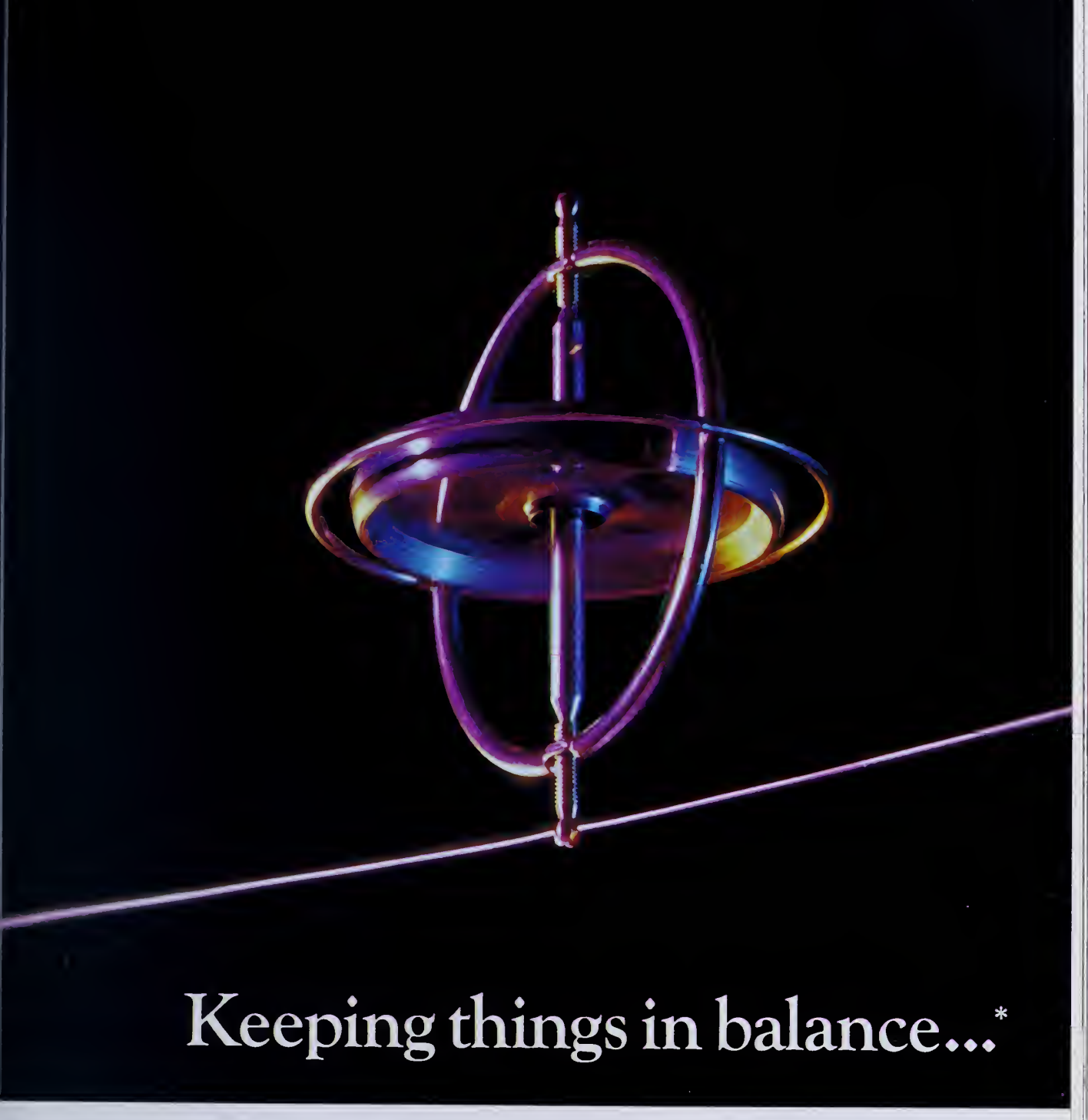
Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

Dosage: Individualize for maximum beneficial effects. Usual maintenance dose is 1 or 2 capsules, 3 or 4 times a day, before meals and at bedtime. Geriatric patients—see Precautions.

How Supplied: Librax® Capsules, each containing 5 mg chlordiazepoxide hydrochloride (Librium®) and 2.5 mg clidinium bromide (Quarzan™)—bottles of 100 and 500.

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110



Keeping things in balance...*

Antivert®/25 Tablets
(25 mg. meclizine HCl)

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 1 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cl palate. Congeners of meclizine have caused cleft palate in species other than the r

Meclizine HCl is contraindicated in individuals who have shown a previo hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this dr patients should be warned of this possibility and cautioned against driving a car operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in childr have not been done; therefore, usage is not recommended in the pediatric age grou

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

ROERIG Pfiz

A division of Pfizer Pharmaceutic
New York, New York 10017



For relief of low back pain*
(including intervertebral disc)

Bed rest, moist heat, exercise and 'Soma 350' (carisoprodol) can help relax muscle spasm, relieve mild-to-moderate pain, restore range of motion.*

Economically...with only one tablet *q.i.d.*

Measure the results yourself. (Wallace will even send you a complimentary goniometer.)

* **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indication as follows:

"Possibly" effective: for symptomatic relief in conditions characterized by skeletal muscle spasm and mild to moderate pain.

Final classification of this indication requires further investigation.

Contraindications: Acute intermittent porphyria and allergic or idiosyncratic reactions to carisoprodol or related compounds such as meprobamate, mebutamate, tybamate.

Warnings: *Idiosyncratic Reactions:* Rarely, first dose has been followed by extreme weakness, transient quadriplegia, dizziness, ataxia, temporary vision loss, diplopia, mydriasis, dysarthria, agitation, euphoria, confusion, disorientation. Symptoms usually subside during the next several hours. Supportive and symptomatic therapy, including hospitalization, may be necessary.

Pregnancy and Lactation: Safe use not established; weigh potential benefits against potential hazards in pregnancy, nursing mothers, or women of childbearing potential.

Children Under Five: Drug not recommended.

Potentially Hazardous Tasks: Driving a motor vehicle or operating machinery.

Additive Effects: Possible additive effects between carisoprodol alcohol, and other CNS depressants or psychotropic drugs.

Drug Dependence: Use cautiously in addiction-prone patients.

Precautions: To avoid excess accumulation, use caution in patients with compromised liver or kidney function.

Adverse Reactions: *Central Nervous System:* Drowsiness, dizziness, vertigo, ataxia, tremor, agitation, irritability, headache, depressive reactions, syncope, insomnia.

Allergic or Idiosyncratic: Usually seen after 1-4 doses in patient not previously exposed, e.g., rash, erythema multiforme, pruritus, eosinophilia, fixed drug eruption with cross reaction to meprobamate. More severe manifestations: asthma, fever, weakness, dizziness, angioneurotic edema, smarting eyes, hypotension, anaphylactoid shock. Stop drug, treat symptomatically (e.g., possible use of epinephrine, antihistamines, and in severe cases corticosteroids).

Cardiovascular: Tachycardia, postural hypotension, facial flushing.

Gastrointestinal: Nausea, vomiting, hiccup, epigastric distress.

Hematologic: Leukopenia and pancytopenia (on carisoprodol plus other drugs).

Usual Adult Dosage: One 350 mg tablet three times daily and at bedtime.

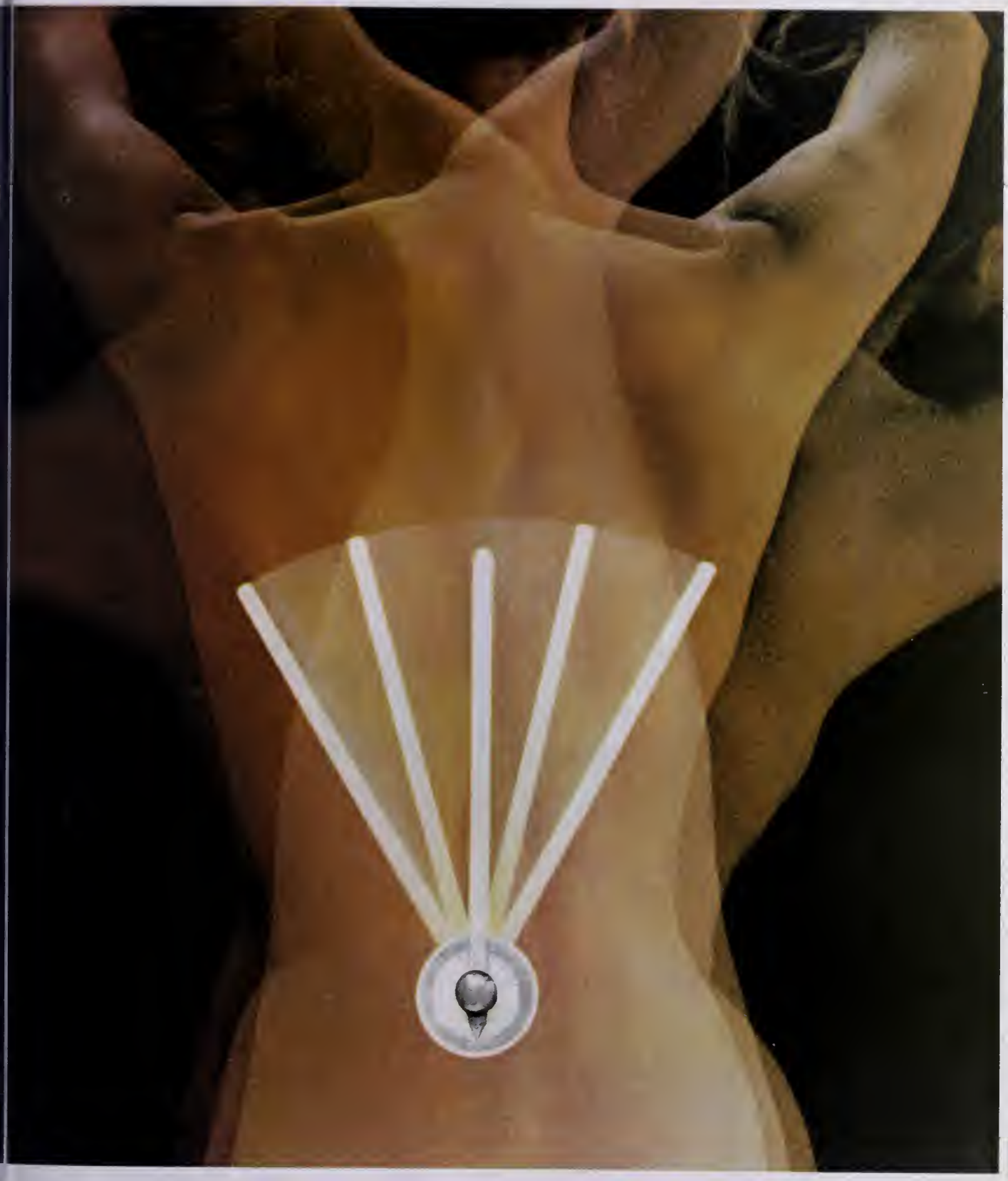
Overdosage: Has produced stupor, coma, shock, respiratory depression, and, very rarely, death. Overdosage of carisoprodol plus alcohol or other CNS depressants or psychotropic drugs can be additive. Empty stomach, treat symptomatically; cautiously give respiratory assistance, CNS stimulants, pressor agents as needed. Carisoprodol is metabolized in the liver and excreted by the kidney. Diuresis and dialysis have been used successfully with related drug meprobamate. Carefully monitor urinary output; avoid overhydration; observe for possible relapse due to incomplete gastric emptying and delayed absorption.

Before prescribing, consult package circular or latest PDR information.

Rev 5/72

WALLACE LABORATORIES Cranbury, N.J. 08512

Soma® 350 its power ma
(carisoprodol) 350 mg tablets



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Healing nicely, but it still HURTS

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HERE Sutures



Empirin Compound with Codeine is effective for visceral as well as soft tissue pain—provides an antitussive bonus in addition to its prompt, predictable analgesia.

prescribing convenience: up to 5 refills in 6 months, at your discretion (unless restricted by state law); by telephone order in many states.

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Wellcome | **Burroughs Wellcome Co.**
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North Carolina 27709



EMPIRIN COMPOUND c̄ CODEINE

#3, codeine phosphate* (32.4 mg.) gr. ½
#4, codeine phosphate* (64.8 mg.) gr. 1

PHYSICIAN PLACEMENT SERVICE IN ALABAMA

The Physician Placement Service of the Medical Association of the State of Alabama is designed to assist both physicians and communities. MASA members having knowledge of practice opportunities or wishing to relocate their own practices are urged to communicate with the Placement Service. For further information: write Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, 19 South Jackson Street, Montgomery, Alabama 36104, or Telephone 263-6441.

Locations Wanted

General Practice—

Age 28; Indiana University 1972; Board eligible; seeking associate or group. Available July 1975. LW-1/3

Age 47; Manila Central University 1955; Board eligible; seeking solo, associate, industrial, institutional or emergency room (pathology or general practice). Available Fall 1974 or 1975. LW-1/5

Age 28, Temple University, 1972, National Board, seeking solo, associate, or rural general practice. Available January 1975. LW-1/7

Internal Medicine—

Age 31; Downstate Medical Center, 1968; National Board, Board certified; seeking associate, group or institutional practice (interest in cardiology); Available July 1975. LW-4/13

Age 34; Indiana University, 1968; Board certified-int. med.; Board eligible-nephrology; seeking group practice. Available July 1975. LW-4/14

Age 51; Baylor University, 1947; Board certified-AP, CP; Board eligible-int. med.; seeking associate, group or emergency room. LW-4/15

Age 31; Medical College of Georgia, 1968; Board eligible; seeking associate practice in North Alabama or coastal area. Available July 1975. LW-4/4

Age 33; Medical College of South Carolina, 1966; Board certified; seeking group or associate. Available September 1975. LW-4/5

Age 32; Emory University, 1968; seeking solo, associate or group practice. Available July 1975. LW-4/6

Age 32; University of Arkansas 1968; Board eligible; seeking associate, group or institutional practice (interest in pulmonary medicine). Available July 1975. LW-4/12

Obstetrics-Gynecology—

Age 32; Medical College of Georgia, 1968; Board eligible; seeking associate practice. Available July 1975. LW-5

Ophthalmology—

Age 31; Vanderbilt, 1968, National Board; Available July 1975. LW-10/2

Age 38; Baylor 1962; Board certified; seeking solo, associate, group, industrial, or institutional practice. Available September 1974-Jan. 1975. LW-10

Age 31; Vanderbilt University 1968; National Board; Available July 1975. LW-10/1

Age 33; Tulane, 1967, Board eligible, seeking solo, associate, group or institutional practice. LW 10/3

Pediatrics—

Age 30; Georgetown Medical School, 1970; National Board; Board eligible; seeking associate, group, industrial practice. Available July 1975. LW-7/4

Radiology—

Age 31; University of Texas, 1969, Board eligible, seeking associate or group practice (diagnostic radiology). Available July 1975. LW-11

Surgery—

Age 32; New York Medical College, 1968; National Board, Board certified; seeking solo, associate or group practice. Available July 1975. LW-8/2

Age 34; Bowman Gray 1966; Board certified; seeking associate or group. Available August 1975. LW-8/3

Urology—

Age 32; Georgetown University, 1968; National Board; Board eligible; seeking associate, group or industrial. Available Fall 1975. LW-9/2

Age 31; Case Western Reserve, 1968, Board eligible, seeking associate, group or academic position. Available May-June 1975. LW-9/5

Age 40; Medical University of South Carolina, 1961, Board certified, seeking solo, associate, group or institutional practice. Available January 1975. LW-9/6

Physicians Wanted

General Practitioners—

Physician wanted for general practice in town of 7,000 population with trade area of 15,000 population located in central Alabama. 35-bed hospital located in town. Office space available near hospital. Nearest large city with population of 50,000 is 30 miles away. Numerous churches and schools. Lumber and textile industry. Recreational activities and civic clubs. PW-8/2

Physician wanted for general practice, group or associate, in University town of 40,000 population. Salary and partnership negotiable. PW-1

General Practitioner wanted for multi-specialty group practice on Bay in South Alabama. Modern offices, near hospital. Salary with incentive available. Excellent churches, schools and recreational facilities. PW-2

Associate wanted in a three physician general practice in a rural county near Mobile. Salary initially with anticipated early partnership arrangement. 30-bed county hospital adjoining the office. PW-3

Opportunity for General Practitioner in South Alabama community with a trade area of 20,000 to 25,000 population. Modern hospital with certified surgeon, radiologist, and cardiologist on staff. Present physicians interested in partner, forming Professional Association or may enter into private practice. Free office space available, or physicians in the area interested in building new office building. Excellent school system with junior college within 15 miles. PW-4

Family physician needed as associate with well established physician in small North Alabama town. Modern, fully equipped hospital. Office space and equipment available. Salary negotiable plus other benefits. PW-5

Opportunity for young internist or family physician to join three man group in rapidly growing town of 12,000 population in Tennessee Valley. Excellent hospital. Modern well-equipped office. PW-6

Opportunity in southeast Alabama in town of 3,000 population, trade area of 15,000 population. Nearest large city, 8 miles, 40,000 population, and 2 large hospitals. Office space and housing readily available. Industrial and agricultural area. Churches, schools, civic and social activities. PW-7

Opportunity in south Alabama in town of 2,700 population, trade area of 15,000 population. Nearest large city of 30,000 population located 45 miles. Nearest hospital is 10 miles. One physician now engaged in practice in the town. Necessary arrangements will be made for office space, equipment, and housing. Industrial and agricultural area. Churches, schools, civic and social activities. PW-8

General Practitioner urgently needed for busy, active practice in rural densely populated area in Northeast Alabama. Modern fully equipped clinic with X-ray, lab facilities, four examining rooms, minor surgery, emergency room, physician's office, large twenty-patient waiting room, spacious business and records section, nurses and physicians lounge. Office personnel available. Accredited general hospital nearby. PW-8/1

Special Openings—

Wanted—2 Internists, 2 Ob-Gyn, 2 Pediatricians, 1 Urologist, 1 Anesthesiologist. Fee for service basis, Gross guarantee 1st and 2nd year. New office space to be available next to hospital. 100-bed hospital, modern well equipped, fulltime radiologist and pathologist. Two general surgeons and 9 general practitioners now serving population base 40,000. Unemployment in area less than one percent. Excellent recreation area. Invitations to visit with expenses paid will be directed to those qualified. PW-12

Opportunity for *Family Practice* and *Internists* in central Alabama town in population group 10,000-25,000. PW-13

Student Health Physician. (particularly interested in female physician) Opportunity available for clinical medicine in a University of 15,000 students. Four weeks annual leave, sick leave, retirement, salary negotiable. PW-14

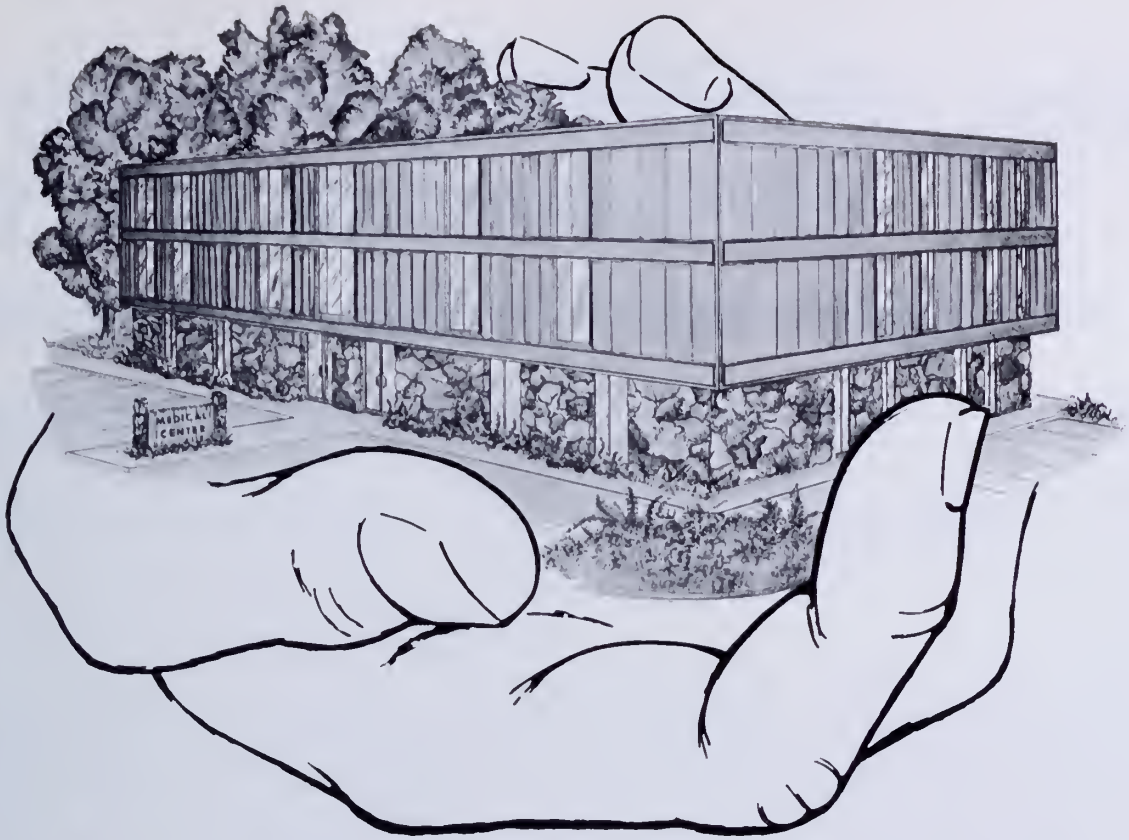
Wanted, internists, generalists, radiologist, orthopedist, general surgeons. Town of 15,000 population in county of 45,000 population located in Southeast Alabama. Attractive for a group setup. High income area and marked scarcity of physicians. Excellent schools and recreational facilities. Newly expanded hospital. PW-9

General Surgeon and Ophthalmologist wanted for community of 22,000 population and 45,000 service area. New hospital with eight general practitioners and one Board certified radiologist. Schools for blind and deaf located in the town. Excellent schools and recreational facilities. PW-11

Internist Wanted

Solo ? —Associate ?

Established internist in Homewood (Birmingham) enlarging own building wishes associate in practice for mutual benefits. Reply P. O. Box 6106, Birmingham, Ala. 35209.



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We are specialists in the design and construction of clinics, nursing homes and other medical treatment buildings. Our experienced staff and modern plant facilities enable us to provide our clients with a complete building service, tailored to their individual specifications and within their budget requirements.

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Comptroller
Data Technology Corporation
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David Fox stays with Bell because he knows it's a sound financial decision. It would be for you, too.

South Central Bell can meet your *total* communications needs—whether one phone or a complex network nationwide. So, if you are considering changing your telephone system, call a communications consultant from the only full-service communications company in town.

South Central Bell

There's more to a phone system than telephones.

Cancer Society Awards Grants

The American Cancer Society has announced that it has awarded grants totaling $291,247 during the 1973-74 fiscal year for cancer research and education at The University of Alabama in Birmingham (UAB) Comprehensive Cancer Center.

Dr. John R. Durant, director of the UAB Cancer Center, said the cancer grants are being used to support several important research projects and fellowships. The fellowship funds are particularly significant because they are no longer provided by the Federal government, he added.

Dr. Durant, also president of the Alabama Division of the American Cancer Society, was named recipient of two grants, one for $20,000 for institutional research, and another for $2,000 to provide drugs for indigent patients. Both grants are awarded annually to the UAB Cancer Center.

Other grants to the Cancer Center include:

—Dr. Thomas G. Pretlow III, professor of pathology, $71,349, to study the causes of Hodgkin's disease.

—Dr. George A. Omura, associate professor of medicine in the division of hematology-oncology, $24,000, to establish an advanced clinical fellowship.

—Dr. John T. Carpenter, assistant professor of medicine in the division of hematology-oncology, $24,000, to establish a junior faculty fellowship.

—Dr. Tetsuo Shirota, professor of microbiology, $88,412, to conduct research work with cell cultures derived from normal and malignant tissues.

—Dr. Francisco Robert, fellow in the division of hematology-oncology, $4,800, for his institutional clinical fellowship.

—Dr. Ronald T. Acton, assistant professor of microbiology, $60,686, for research work with leukemia cell membrane components.

Since 1945, the American Cancer Society, through the efforts of the Alabama Division, has provided a total of $3,597,183 in research grants for the State's institutions.

Rondomycin
(methacycline HCl)

CONTRAINDICATIONS: Hypersensitivity to any of the tetracyclines.
WARNINGS: Tetracycline usage during tooth development (last half of pregnancy to eig years) may cause permanent tooth discoloration (yellow-gray-brown), which is mo common during long-term use but has occurred after repeated short-term course Enamel hypoplasia has also been reported. **Tetracyclines should not be used in this a group unless other drugs are not likely to be effective or are contraindicate**
Usage in pregnancy. (See above **WARNINGS** about use during tooth developmen
Animal studies indicate that tetracyclines cross the placenta and can be toxic to the d veloping fetus (often related to retardation of skeletal development). Embryotoxicity h also been noted in animals treated early in pregnancy.
Usage in newborns, infants, and children. (See above **WARNINGS** about use duri tooth development.)
All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrea in tibula growth rate observed in prematures given oral tetracycline 25 mg/kg every hours was reversible when drug was discontinued.
Tetracyclines are present in milk of lactating women taking tetracyclines.
To avoid excess systemic accumulation and liver toxicity in patients with impaired re function, reduce usual total dosage and, if therapy is prolonged, consider serum level terminations of drug. The anti-anabolic action of tetracyclines may increase BUN. Wh not a problem in normal renal function, in patients with significantly impaired functi higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidos
Photosensitivity manifested by exaggerated sunburn reaction has occurred with tet cyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so vised, and treatment should be discontinued at first evidence of skin erythema.
PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organism including fungi, discontinue antibiotic and start appropriate therapy.
In venereal disease, when coexistent syphilis is suspected, perform darkfield exa nation before therapy, and serologically test for syphilis monthly for at least four montl
Tetracyclines have been shown to depress plasma prothrombin activity; patients on ticoagulant therapy may require downward adjustment of their anticoagulant dosage.
In long-term therapy, perform periodic organ system evaluations (including blo renal, hepatic).
Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.
Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, a giving tetracycline with penicillin.
ADVERSE REACTIONS: Gastrointestinal (oral and parenteral forms): anorexia, naus vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with mo ial overgrowth) in the anogenital region.
Skin: maculopapular and erythematous rashes; exfoliative dermatitis (uncommon). F tosensitivity is discussed above (See **WARNINGS**).
Renal toxicity: rise in BUN, apparently dose related (See **WARNINGS**).
Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purp pericarditis, exacerbation of systemic lupus erythematosus.
Bulging fontanels, reported in young infants after full therapeutic dosage, have di peared rapidly when drug was discontinued.
Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.
Over prolonged periods, tetracyclines have been reported to produce brown-black croscopic discoloration of thyroid glands; no abnormalities of thyroid function studies known to occur.
USUAL DOSAGE: Adults—600 mg daily, divided into two or four equally spaced do More severe infections: an initial dose of 300 mg followed by 150 mg every six hou 300 mg every 12 hours. Gonorrhea. In uncomplicated gonorrhea, when penicillin is traindicated, 'Rondomycin' (methacycline HCl) may be used for treating both males females in the following clinical dosage schedule: 900 mg initially, followed by 30 q.i.d. for a total of 5.4 grams.
For treatment of syphilis, when penicillin is contraindicated, a total of 18 to 24 gra 'Rondomycin' (methacycline HCl) in equally divided doses over a period of 10-15 should be given. Close follow-up, including laboratory tests, is recommended.
Eaton Agent pneumonia: 900 mg daily for six days.
Children—3 to 6 mg/lb/day divided into two to four equally spaced doses.
Therapy should be continued for at least 24-48 hours after symptoms and fever subsided.
Concomitant therapy: Antacids containing aluminum, calcium or magnesium impa sorption and are contraindicated. Food and some dairy products also interfere. Give one hour before or two hours after meals. Pediatric oral dosage forms should n given with milk formulas and should be given at least one hour prior to feeding.
In patients with renal impairment (see **WARNINGS**), total dosage should be decr by reducing recommended individual doses or by extending time intervals be doses.
In streptococcal infections, a therapeutic dose should be given for at least 10 days
SUPPLIED: 'Rondomycin' (methacycline HCl): 150 mg and 300 mg capsules; syrup taining 75 mg/5 cc methacycline HCl.

Before prescribing, consult package circular or latest PDR information.
Rev

WALLACE LABORATORIES
CRANBURY, NEW JERSEY 08512



When the focus is on bronchitis due to susceptible strains of *H. influenzae* and pneumococci*

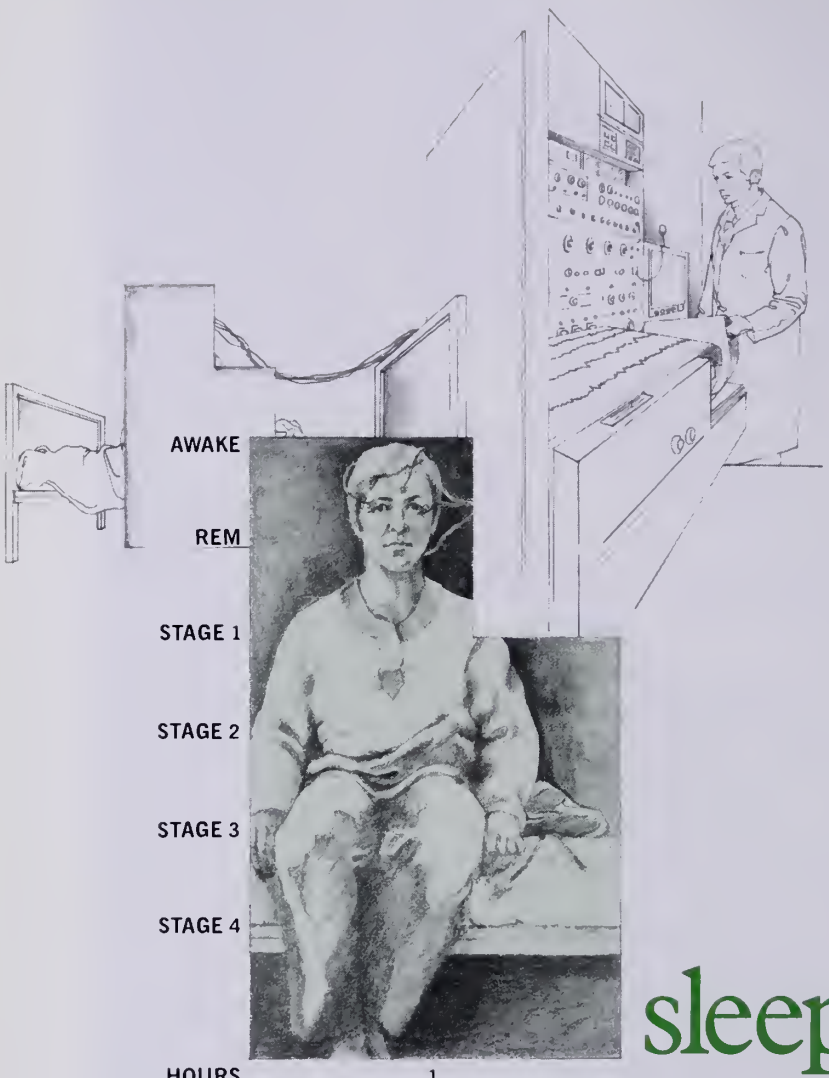
Rondomycin® 300 mg. Capsules

[methacycline HCl]

Delivers from the very first dose:

Studies show that after the first dose serum levels rapidly rise above minimum *in vitro* inhibitory concentrations

*Since many strains are known to be resistant, routine sensitivity testing is recommended.



sleep begins within 17 minutes, on average ...

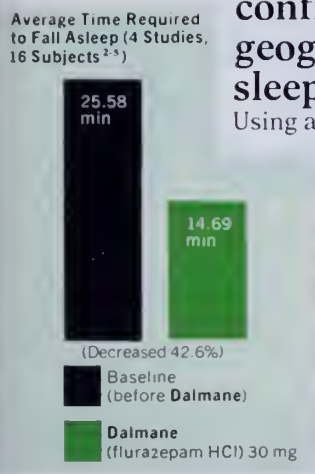
an initial benefit of

Dalmane®

(flurazepam HCl)

proved by a 22-night clinical study of insomnia patients in the sleep research laboratory and at home[1]

Three insomnia patients selected for difficulty falling asleep were administered Dalmane (flurazepam HCl) 30 mg for 14 consecutive nights. Placebo was given for four nights prior to and four nights after Dalmane. Physiologic tracings on Dalmane nights 1-3 showed sleep induction time averaged 13.90 minutes; on Dalmane nights 12-14, 18.80 minutes. Combined average for the 6 monitored drug nights was 16.35 minutes.[1]



confirmed by clinical studies in four geographically separated sleep research laboratories[2-5]

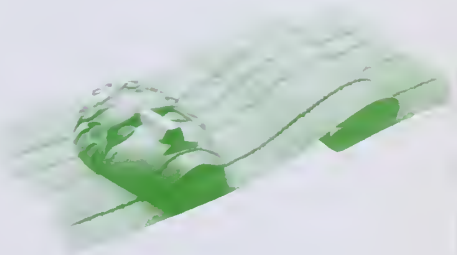
Using a 14-night protocol involving eight insomniac and eight normal subjects, four studies confirmed the sleep-inducing effectiveness of Dalmane (flurazepam HCl) and the reproducibility of this response. On average, one 30-mg capsule induced sleep within 17 minutes. In all these studies, Dalmane induced sleep rapidly, reduced nighttime awakenings, and provided 7 to 8 hours of sleep without repeating dosage[2-5]

Dalmane (flurazepam HCl) induces and maintains sleep, with relative safety

Dalmane is generally well tolerated; morning "hang-over" has been relatively infrequent. While dizziness, drowsiness, lightheadedness and the like have been noted most often, particularly in the elderly and debilitated, physicians should be aware of the possibility of more serious reactions, as noted below.

Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening, in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.
Contraindications: Known hypersensitivity to flurazepam HCl.
Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.
Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.
Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.
Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.
Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



when restful sleep is indicated

Dalmane®
(flurazepam HCl)

One 30-mg capsule *h.s.* — usual adult dosage
(15 mg may suffice in some patients).
One 15-mg capsule *h.s.* — initial dosage for elderly or debilitated patients.

- induces sleep within 17 minutes, on average
- reduces nighttime awakenings
- sustains sleep 7 to 8 hours, on average, without repeating dosage

REFERENCES: 1. Kales A, *et al*: *Arch Gen Psychiatry 23*:226-232, Sep 1970
2. Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington DC, May 3-7, 1971
3. Frost JD Jr: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ
4. Vogel GW: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ
5. Dement WC: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ

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efore prescribing, see complete prescribing
nformation in SK&F literature or *PDR*. The
llowing is a brief summary.
ndications: Edema associated with congestive
eart failure, cirrhosis of the liver, the nephrotic
yndrome; steroid-induced and idiopathic
dema; edema resistant to other diuretic therapy.
lso, mild to moderate hypertension.
ontraindications: Pre-existing elevated serum
otassium. Hypersensitivity to either com-
onent. Continued use in progressive renal or
epatic dysfunction or developing hyperkalemia.
/arnings: Do not use dietary potassium supple-
ents or potassium salts unless hypokalemia
evelops or dietary potassium intake is markedly
npaired. Enteric-coated potassium salts may
ause small bowel stenosis with or without
lceration. Hyperkalemia (>5.4 mEq/L) has
een reported in 4% of patients under 60 years,
n 12% of patients over 60 years, and in less
an 8% of patients overall. Rarely, cases have
een associated with cardiac irregularities.
ccordingly, check serum potassium during
erapy, particularly in patients with suspected
r confirmed renal insufficiency (e.g., elderly or
iabetics). If hyperkalemia develops, substitute
thiazide alone. If spironolactone is used
oncomitantly with 'Dyazide', check serum
otassium frequently—both can cause potassium
etention and sometimes hyperkalemia. Two
eaths have been reported in patients on such
ombined therapy (in one, recommended
osage was exceeded; in the other, serum elec-
olytes were not properly monitored). Observe
atients on 'Dyazide' regularly for possible
lood dyscrasias, liver damage or other idio-
yncratic reactions. Blood dyscrasias have been
eported in patients receiving Dyrenium
riamterene, SK&F). Rarely, leukopenia,
hrombocytopenia, agranulocytosis, and aplastic
nemia have been reported with the thiazides.
Vatch for signs of impending coma in acutely
l cirrhotics. Thiazides are reported to cross the
lacental barrier and appear in breast milk.
his may result in fetal or neonatal hyperbili-
ubinemia, thrombocytopenia, altered carbo-
ydrate metabolism and possibly other adverse
eactions that have occurred in the adult. When
sed during pregnancy or in women who might
ear children, weigh potential benefits against
ossible hazards to fetus.
recautions: Do periodic serum electrolyte and
UN determinations. Do periodic hematologic
udies in cirrhotics with splenomegaly. Anti-
ypertensive effects may be enhanced in post-
mpathectomy patients. The following may
ccur: hyperuricemia and gout, reversible
itrogen retention, descreasing alkali reserve
ith possible metabolic acidosis, hyperglycemia
nd glycosuria (diabetic insulin requirements
ay be altered), digitalis intoxication (in
ypokalemia). Use cautiously in surgical
atients. Concomitant use with antihypertensive
gents may result in an additive hypotensive
ffect.
dverse Reactions: Muscle cramps, weakness,
izziness, headache, dry mouth; anaphylaxis;
ash, urticaria, photosensitivity, purpura, other
ermatological conditions; nausea and vomiting
nay indicate electrolyte imbalance), diarrhea,
onstipation, other gastrointestinal distur-
ances. Rarely, necrotizing vasculitis, pares-
hesias, icterus, pancreatitis, and xanthopsia
ave occurred with thiazides alone.
upplied: Bottles and Single Unit Packages of
00 capsules.

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*E.D. Freis: The Modern Management of Hypertension, V.A. Information Bulletin, 11-35.

TO KEEP BLOOD PRESSURE DOWN AND KEEP POTASSIUM LEVELS UP

CONTINUING MEDICAL EDUCATION

by Larry Dixon

CME Questionnaire

DIRECTIONS: Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the *one* that is BEST in each case.

1. Hirsutism in women with polycystic ovaries is associated with
   A. increased plasma testosterone
   B. increased sensitivity of the hair follicle to normal androgen levels
   C. decreased urinary estrogens
   D. increased urinary estrogens
   E. increased plasma cortisol

2. A 25-year-old man has had many episodes of pounding headaches, perspiration, and palpitation. He is taking no medication. His blood pressure is consistently elevated above 180/110 mm Hg and a pheochromocytoma is suspected. Which of the following would be most reliable in establishing the diagnosis?
   A. Histamine vasopressor test
   B. Estimation of 24-hr excretion of catecholamines or metanephrine
   C. Phentolamine methanesulfonate (Regitine) test
   D. Tyramine test
   E. Renal artery angiograms

3. The diagnosis of von Gierke's disease is best confirmed by an
   A. insulin tolerance test
   B. intravenous glucose tolerance test
   C. intravenous glucagon test
   D. intravenous tolbutamide test
   E. intravenous arginine hydrochloride infusion

4. The most important variable affecting the 24-hr radioactive iodine uptake among euthyroid persons is the
   A. person's age
   B. person's body surface area
   C. person's daily iodine intake
   D. rate of peripheral degradation of thyroid hormones
   E. size of the thyroid gland

5. A young man with severe potassium depletion was found to have increased aldosterone production but a normal blood pressure. The most likely diagnosis would be
   A. adrenal hyperplasia
   B. adrenal tumor
   C. juxtaglomerular hyperplasia (Bartter's syndrome)
   D. Cushing's syndrome
   E. renal tubular acidosis

6. Prostaglandins are a group of unsaturated cyclic fatty acids that
   A. are vasodilators
   B. are vasoconstrictors
   C. are natriuretic
   D. are hypothalamic in origin
   E. produce constipation

7. Metrorrhagia often occurs in patients with

   A. hypothyroidism

   B. hyperthyroidism

   C. hypopituitarism

   D. Addison's disease

   E. acromegaly

8. A 63-year-old diabetic woman is brought to the emergency room. She is febrile, dehydrated, has physical signs of right lower lobe pneumonia, but is alert and free of nausea. Blood glucose is 1100 mg/100 ml. Administration of which of the following would be the most appropriate initial fluid therapy for this patient?

   A. 1000 ml of 0.45 per cent saline solution plus 40 mEg of potassium chloride, intravenously

   B. 1000 ml of 5 per cent dextrose in 0.9 per cent saline solution, intravenously

   C. 1000 ml of 5 per cent fructose in 0.9 per cent saline solution, intravenously

   D. 1000 ml of water, orally

   E. 500 ml of 5 per cent dextrose in water mixed with 500 ml of 1/6 M sodium lactate, intravenously

9. A 46-year-old woman, who is not overweight, has recently noted the onset of nocturia. Her mother was known to have developed diabetes mellitus at the age of 28. Fasting blood glucose determinations are normal. A standard oral glucose tolerance test, after three days of adequate carbohydrate intake, yielded the following results:

Fasting	90 mg/100 ml
30 min	200 mg/100 ml
1 hr	180 mg/100 ml
2 hr	120 mg/100 ml
3 hr	80 mg/100 ml
4 hr	40 mg/100 ml

   The diagnosis of "latent" or "clinical" diabetes is made. Which of the following immunoreactive insulin (IRI) levels would be expected during the above glucose tolerance test?

   A. Fasting IRI, 150 microunits/ml (normal fasting: 5-20 microunits/ml)

   B. IRI levels never exceeding 5 microunits/ml

   C. A delayed increase in IRI from the fasting level of 10 microunits/ml to: 15 microunits/ml at 30 min; 30 microunits/ml at 1 hr; 100 microunits/ml at 2 hr; 120 microunits/ml at 3 hr; and 30 microunits/ml at 4 hr

   D. A rapid increase in IRI to 150 microunits/ml at 30 min, remaining at that level for 3 hr

   E. A rapid increase in IRI to 60 microunits/ml at 1 hr, with a steady decrease thereafter

10. In renal osteodystrophy

    A. calcium absorption from the gut improves as renal acidosis becomes more advanced

    B. hyperphosphatemia is usually observed when the glomerular filtration rate decreases below 70 per cent of normal

    C. the degree of hypocalcemia is directly related to the degree of hyperphosphatemia

    D. the usual close relationship between urinary sodium and calcium excretion disappears

    E. vitamin D will correct the hypophosphatemia

Correct Answers: 1-A, 2-B, 3-C, 4-C, 5-C, 6-A, 7-A, 8-D, 9-C, 10-B

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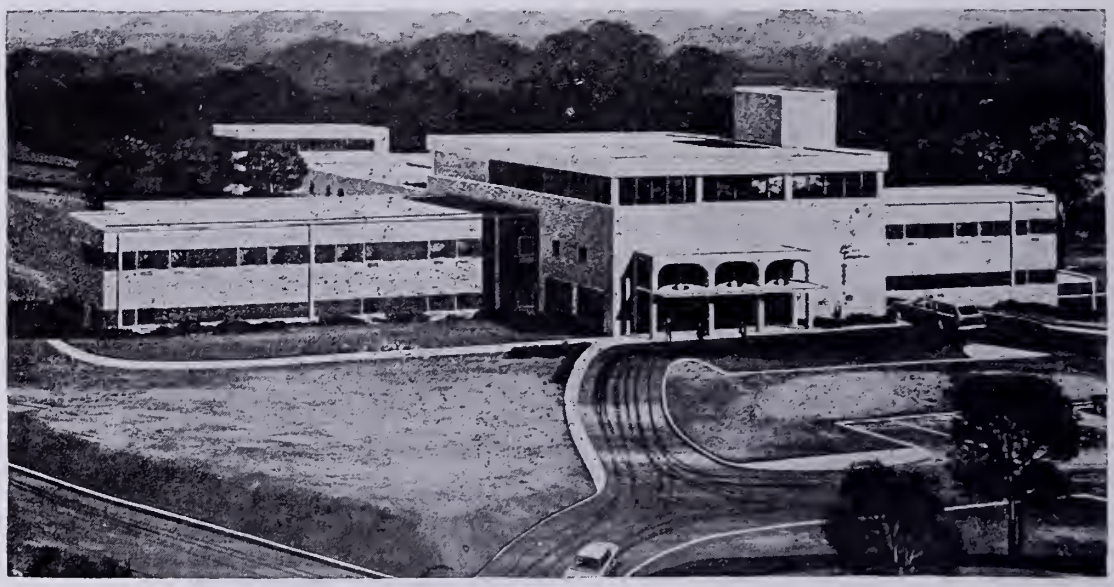


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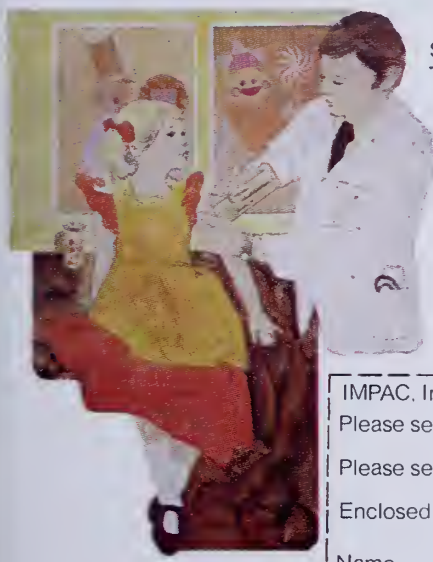


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For further information on this subject, the following references are provided:

1. Henry BW, *et al: Dis Nerv Syst 30*:675-679, Oct 1969.
2. Hollister LE, *et al: Arch Gen Psychiatry 24*:273-278, Mar 1971.
3. Claghorn J: *Psychosomatics 11*:438-441, Sept-Oct 1970.



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A Physician's Prayer

It is entirely appropriate
In this season of Thanksgiving,
For us as physicians, intrusted with
The accumulated knowledge of many centuries
Of a science and art dedicated to lending
Health and Grace and dignity to life,
To pause in order to reflect on the inability
Of scientific medicine to answer
Much of the personal and moral and ethical
Overtones of so many medical decisions.

Modern medicine has created dilemmas
Which are not always easily solved
By a physician in the ordinary
Scientific and Psychologic pursuit
Of his profession.

We are the servants of
The Most Learned Physician
Who has lent us gifts
Of Wisdom and Charity, Courage and Humility,
And enabled us to be His messengers
Among our patients.

For these, we offer prayers of Thanksgiving.

May we, in addition, be granted
Continued unrest,
That we may always be concerned
With our inadequacies.

And, finally, may we be granted Peace—
His most precious gift.

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WOMAN'S AUXILIARY

EVELYN O'BRIEN, PRESIDENT



Our State Medical Auxiliary Fall Workshop at the Kahler Plaza, Birmingham, on September 25th was well attended by Auxiliary members. Most of the state officers and committee chairmen were there, as well as more than half of the county presidents. We held it early in the fall, hoping that it would help the county Auxiliaries with new ideas in making their plans for the year.

Mrs. George Scofield, our treasurer, told us that we were in the happy position of having accumulated an extra $1000 in our treasury. We voted to set up a scholarship loan fund for Health Careers, which would be administered by the Health Careers Council. Mr. Fred Crawford, Director of the Health Careers Council, spoke to us about the requests the Council receives for financial aid for students in health fields. The Auxiliary felt this was a need which we were happy and able to meet.

We also heard from Mr. Richard Whitaker, Director of Legislative Affairs for the Medical Association of Alabama, concerning the need for all Alabama doctors and their wives to join ALAPAC and support candidates for state office. Next May, our Auxiliary will have our second "Day in the Legislature" when we will descend on Montgomery, hopefully in large numbers. We will take our representatives and senators to lunch and attend their sessions. We hope this will help them realize how important they are in promoting the best for our state health needs.

Dr. Charles Herlihy spoke to us at lunch about "Family Health." He pointed out that an understanding of "self" was important and that "self" should be respected in family relationships. Many of us felt he gave us some new insights to help us in our family life. We were pleased to have the President of the State Medical Association, Dr. Garber Galbraith, as our luncheon guest.

Our national Community Health Chairman, Mrs. Charles Gilliland of Gainesville, Florida, discussed the usefulness of health resources surveys, with the idea of finding out which health needs are not being met. She recommended that we investigate those basic and support services which we have in our respective counties and those we do not have, both public and private. She said that the kind of personnel, professional or volunteer, required by these services was very important. She felt that once we can establish a need, we must educate the public that there is a need for a health service and how it can benefit from existing health services. Mrs. Lewis Young, our Health Education Chairman, pointed out once again that Health Education in our schools would be one of the best ways to insure that the public would be made aware of health needs and how these needs could be met.

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CONTINUING MEDICAL EDUCATION

by Larry Dixon

The recently concluded site survey of Lloyd Noland Hospital's continuing medical education program signaled the culmination of the Education Committee's efforts to become the intra-state continuing medical education accreditation agency. The effort expended at Lloyd Noland was the result of 1½ years of Association time, thought and effort.

The involvement by the Education Committee and the Education Department had been one of sporadic concern and activity throughout the many months in which this program was planned, pursued and completed. However, now is not the time for the Education Committee to sit back and enjoy its initial success. Now is the time for the realization by the Committee and the membership of this Association that the task of providing quality continuing medical education with accredited status is really just beginning.

In addition to the accreditation program, the Education Committee has pursued a continuing medical education membership requirement for the Medical Association of the State of Alabama. This requirement is currently a part of the Association's Constitution. In reality, however, the cme requirement is static at this time. The specific starting period was tabled by the House of Delegates. This was done to allow the Education Department sufficient time to circulate the requirements for membership.

Although, unspoken at the 1974 Annual Session, the thought foremost in the minds of many Counsellors and Delegates was that the Association was on the verge of requiring continuing medical education without having proceeded sufficiently in the direction of providing what they were about to require. Therefore, the cme requirement and the cme accreditation program are intertwined so that the most casual observer can readily see how the program works.

It is the desire of this Association's Education Committee to provide continuing medical education to the members through the accreditation of the State hospitals. Although the program has been successful and the Association is now in the position of accrediting as many institutions as can meet the standards, the process is going to be long and time consuming. The cme producing agencies and institutions throughout this State are not yet requesting accreditation as quickly as was expected. The agencies showing the most interest in receiving cme accreditation are State Specialty Societies and agencies such as the Heart and Cancer Associations. These groups are generally in the position of providing only a yearly meeting, or in the case of some of the more active agencies, several programs a year. Their accreditation can be and probably will be forthcoming; however, the continuing medical education program provided by a physician's specialty society or by an agency such as those mentioned above will not be sufficient to meet the needs of the physicians of this State. Alabama physicians must have a large number of agencies that have met the standards required by both AMA and MASA Education Committees and they must be actively producing continuing medical education.

The cme produced in Alabama by the University of Alabama Division of Continuing Medical Education is of high quality and is rapidly becoming more accessible to the physician. However, the areas in which these programs are produced are still many miles away from a large number of practicing physicians. The accreditation program, if it

(Continued on Page 228)



This series of pictures is designed to show the Lloyd Noland CME accreditation procedure—(all pictures are left to right unless stated otherwise)—1] Drs. Frank Bryan, AMA, Rutledge Howard, AMA, Margaret Klapper, MASA's Site Survey Team, Ralph Tieszen, Team, E. E. Litkenhous, Review Committee, James A. Pittman, Review Committee, W. D. Lazenby, Team, J. W. Denson, Review Committee. 2] Tieszen, MASA, Bryan, AMA, Howard; AMA. 3] Howard, Tieszen, Dr. Martin Putnoi, DME, Lloyd Noland, Klapper, MASA, Bryan, Lazenby, MASA. 4] Dr. Leon Hamrick, Medical Director, Lloyd Noland, Klapper, Howard. 5] Howard, Klapper, Tieszen, Putnoi, Lazenby and Bryan, the official visitors. 6] Dr. William B. Hunt, Lloyd Noland. 7] Bryan, Howard, Lazenby, Klapper, in the Medical Director's office. 8] An interview with Department Heads, Medical Staff and Residents in the Library (clockwise) Drs. Charles Porter, Homer Crandall, Lazenby, Bryan, Robert Grady (obscured) James Welburn, Putnoi, Earl Riley and Howard. 9] (counter-clockwise) Drs. Bernard Schencker, Tieszen, Howard, Riley, Putnoi, Crandall, Porter and Klapper. 10] Klapper, Lazenby, Bryan, Putnoi, Tieszen and Howard.

(Continued from Page 226)

is sought after by the Association membership, can eventually provide top quality continuing medical education for every physician in this State.

Every hospital administrator has received notification of the accreditation program and has received the Association's *Accreditation Manual for Continuing Medical Education Activities In The State of Alabama.* Their response has been less than satisfactory. The program is not going to benefit the hospital administrator. It is going to benefit the physician and patient residing in the hospital area. The medical staff of the hospital must take an active interest in this program and explain that interest to the hospital administrator and ask that he contact MASA's Education Department and make application for an accreditation survey. Only in this manner will continuing medical education eventually be accessible to every physician in this State. When the accreditation program has had several years of continued success and hospitals have applied and received their accredited status, Alabama physicians will no longer have to leave their practices and drive many miles to pursue accredited cme. Quality cme will be available through their own hospital.

Association Name Is Changed

Delegates to the 25th Annual Meeting of the American Group Practice Assn. voted overwhelmingly to approve a recommendation from the Constitution and Bylaws Committee, which directed that the name of the Association be changed from the AMERICAN ASSOCIATION OF MEDICAL CLINICS to the AMERICAN GROUP PRACTICE ASSOCIATION (AGPA). Citing the frequent confusion surrounding the use of the term "clinic," the general lack of a precise definition, and the lack of association identity arising from the use of the acronym "AAMC", the delegates voted to "call us what we are—an association of group practices."

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PHYSICIAN PLACEMENT SERVICE IN ALABAMA

The Physician Placement Service of the Medical Association of the State of Alabama is designed to assist both physicians and communities. MASA members having knowledge of practice opportunities or wishing to relocate their own practices are urged to communicate with the Placement Service. For further information: write Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, 19 South Jackson Street, Montgomery, Alabama 36104, or Telephone 263-6441.

Locations Wanted

General Practice—

Age 28; Indiana University 1972; Board eligible; seeking associate or group. Available July 1975. LW-1/3

Age 47; Manila Central University 1955; Board eligible; seeking solo, associate, industrial, institutional or emergency room (pathology or general practice). Available Fall 1974 or 1975. LW-1/5

Age 28, Temple University, 1972, National Board, seeking solo, associate, or rural general practice. Available January 1975. LW-1/7

Internal Medicine—

Age 31; Downstate Medical Center, 1968; National Board, Board certified; seeking associate, group or institutional practice (interest in cardiology); Available July 1975. LW-4/13

Age 34; Indiana University, 1968; Board certified-int. med.; Board eligible-nephrology; seeking group practice. Available July 1975. LW-4/14

Age 31; Medical College of Georgia, 1968; Board eligible; seeking associate practice in North Alabama or coastal area. Available July 1975. LW-4/4

Age 33; Medical College of South Carolina, 1966; Board certified; seeking group or associate. Available September 1975. LW-4/5

Age 32; Emory University, 1968; seeking solo, associate or group practice. Available July 1975. LW-4/6

Age 32; University of Arkansas 1968; Board eligible; seeking associate, group or institutional practice (interest in pulmonary medicine). Available July 1975. LW-4/12

Age 29; Medical College of Georgia, 1971; National Board; Available July 1975. (internal medicine-gastroenterology) preferably South Alabama, Mobile. LW-4/16

Obstetrics-Gynecology—

Age 32; Medical College of Georgia, 1968; Board eligible; seeking associate practice. Available July 1975. LW-5

Ophthalmology—

Age 31; Vanderbilt, 1968, National Board; Available July 1975. LW-10/2

Age 38; Baylor 1962; Board certified; seeking solo, associate, group, industrial, or institutional practice. Available September 1974-Jan. 1975. LW-10

Age 31; Vanderbilt University 1968; National Board; Available July 1975. LW-10/1

Age 33; Tulane, 1967, Board eligible, seeking solo, associate, group or institutional practice. LW 10/3

Age 29; Baylor University, 1971, seeking associate or institutional practice. Available July 1975. LW-10/4

Pathology—

Age 37; University of Texas, 1965; National Board, Available January 1975. LW-2

Pediatrics—

Age 30; Georgetown Medical School, 1970; National Board; Board eligible; seeking associate, group, industrial practice. Available July 1975. LW-7/4

Psychiatry—

Age 30, University of Alabama, 1970; National Board; (adult and child psychiatry); prefer Birmingham area; Available August 1975. LW-6

Radiology—

Age 31; University of Texas, 1969, Board eligible, seeking associate or group practice (diagnostic radiology). Available July 1975. LW-11

Age 30; University of Alabama, 1970; Board eligible; National Board; seeking associate, industrial or institutional practice. Available July 1975. LW-11/1

Surgery—

Age 32; New York Medical College, 1968; National Board, Board certified; seeking solo, associate or group practice. Available July 1975. LW-8/2

Age 34; Bowman Gray 1966; Board certified; seeking associate or group. Available August 1975. LW-8/3

Urology—

Age 32; Georgetown University, 1968; National Board; Board eligible; seeking associate, group or industrial. Available Fall 1975. LW-9/2

Age 31; Case Western Reserve, 1968, Board eligible, seeking associate, group or academic position. Available May-June 1975. LW-9/5

Age 40; Medical University of South Carolina, 1961, Board certified, seeking solo, associate, group or institutional practice. Available January 1975. LW-9/6

Physicians Wanted

General Practitioners—

Physician wanted for general practice in town of 7,000 population with trade area of 15,000 population located in central Alabama. 35-bed hospital located in town. Office space available near hospital. Nearest large city with population of 50,000 is 30 miles away. Numerous churches and schools. Lumber and textile industry. Recreational activities and civic clubs. PW-8/2

Physician wanted for general practice, group or associate, in University town of 40,000 population. Salary and partnership negotiable. PW-1

General Practitioner wanted for multi-specialty group practice on Bay in South Alabama. Modern offices, near hospital. Salary with incentive available. Excellent churches, schools and recreational facilities. PW-2

Associate wanted in a three physician general practice in a rural county near Mobile. Salary initially with anticipated early partnership arrangement. 30-bed county hospital adjoining the office. PW-3

Opportunity for General Practitioner in South Alabama community with a trade area of 20.000 to 25,000 population. Modern hospital with certified surgeon, radiologist, and cardiologist on staff. Present physicians interested in partner, forming Professional Association or may enter into private practice. Free office space available, or physicians in the area interested in building new office building. Excellent school system with junior college within 15 miles. PW-4

Family physician needed as associate with well established physician in small North Alabama town. Modern, fully equipped hospital. Office space and equipment available. Salary negotiable plus other benefits. PW-5

Opportunity for young internist or family physician to join three man group in rapidly growing town of 12,000 population in Tennessee Valley. Excellent hospital. Modern well-equipped office. PW-6

Opportunity in southeast Alabama in town of 3,000 population, trade area of 15,000 population. Nearest large city, 8 miles, 40,000 population, and 2 large hospitals. Office space and housing readily available. Industrial and agricultural area. Churches, schools, civic and social activities. PW-7

Opportunity in south Alabama in town of 2,700 population, trade area of 15,000 population. Nearest large city of 30,000 population located 45 miles. Nearest hospital is 10 miles. One physician now engaged in practice in the town. Necessary arrangements will be made for office space, equipment, and housing. Industrial and agricultural area. Churches, schools, civic and social activities. PW-8

General Practitioner urgently needed for busy, active practice in rural densely populated area in Northeast Alabama. Modern fully equipped clinic with X-ray, lab facilities, four examining rooms, minor surgery, emergency room, physician's office, large twenty-patient waiting room, spacious business and records section, nurses and physicians lounge. Office personnel available. Accredited general hospital nearby. PW-8/1

Special Openings—

Wanted—2 Internists, 2 Ob-Gyn, 2 Pediatricians, 1 Urologist, 1 Anesthesiologist. Fee for service basis, Gross guarantee 1st and 2nd year. New office space to be available next to hospital. 100-bed hospital, modern well equipped, fulltime radiologist and pathologist. Two general surgeons and 9 general practitioners now serving population base 40,000. Unemployment in area less than one percent. Excellent recreation area. Invitations to visit with expenses paid will be directed to those qualified. PW-12

Opportunity for *Family Practice* and *Internists* in central Alabama town in population group 10,000-25,000. PW-13

Wanted, internists, generalists, radiologist, orthopedist, general surgeons. Town of 15,000 population in county of 45,000 population located in Southeast Alabama. Attractive for a group setup. High income area and marked scarcity of physicians. Excellent schools and recreational facilities. Newly expanded hospital. PW-9

General Surgeon and Ophthalmologist wanted for community of 22,000 population and 45,000

(Continued on Page 234)

School Age Thumb-Sucking Considered Serious

Thumb-sucking in the young child is simply a common learned behavior rather than a sign of emotional disturbance, a Rochester, N. Y., pedodontist has reported in a recent issue of *Pediatrics,* the official publication of the American Academy of Pediatrics. "There is no evidence to substantiate the theory that prolonged sucking habits result from emotional disturbances," M. E. J. Curzon emphasized in the AAP journal.

The pedodontist, from the Department of Pedodontics, Eastman Dental Center, Rochester, New York, said further that no relationship has been found between the thumb-sucking habit and the child's sex or place in line of siblings. He cited one study which showed that 45.6% of American children under the age of four years suck their thumbs.

To parents of children with the thumb-sucking habit, Curzon offered this advice: In the small infant, it must first be determined that the baby is getting enough nursing to satisfy its need for oral gratification. If he is not, a pacifier may be prescribed. A pacifier is far more readily given up at a later age than thumb-sucking, he pointed out.

If the child with a thumb-sucking or finger-sucking habit is under 3 years of age, parents should ignore the habit, rather than drawing attention to it. "It should be pointed out that finger-sucking is normal in a large percentage of infants and that in all probability the habit will be voluntarily given up by the age of four years", Curzon indicated. "It is imperative that the parents cease to be overanxious".

If the habit still persists at the age of four, Curzon said, and especially if it is constant throughout the day, concern is warranted. At this stage parents are advised to consult a pedodontist or general dentist for advice and possible treatment. He emphasized that malocclusions arising from prolonged finger- and thumb-sucking cause considerable distress and disfigurement. And he indicated that the incidence of malocclusions following or accentuated by oral habits is therefore high enough to be considered serious.

Is there a tablet containing *only* an expectorant and *only* Glyceryl Guaiacolate? YES!



HYTUSS TABS

(GLYCERYL GUAIACOLATE 100mg.)

1. Patient acceptable tablet dose.
2. Single entity expectorant.
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4. Sugar-free tablet.

An identifiable white, scored tablet which significantly stimulates the secretion of respiratory tract fluid.



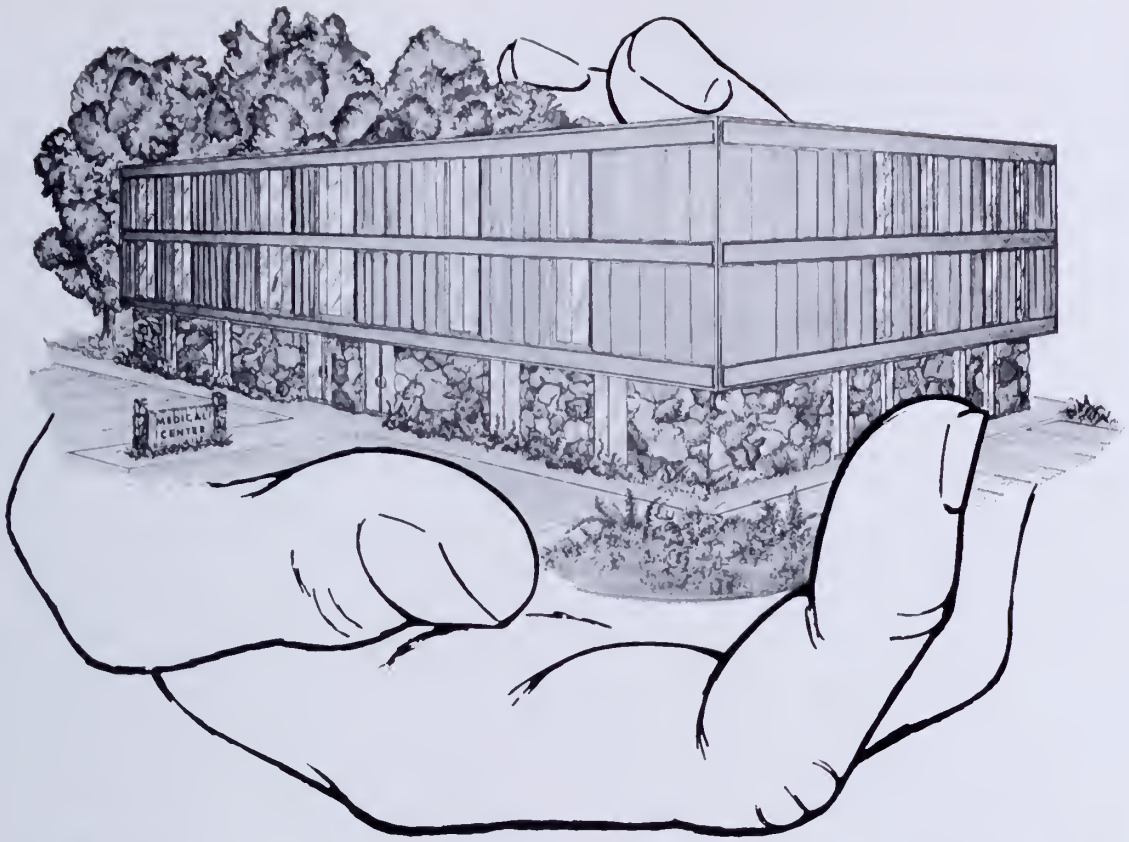
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Hyrex

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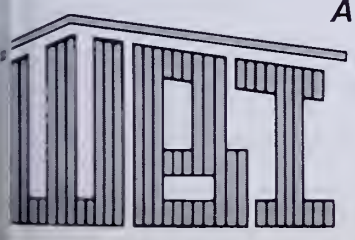
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(Continued from Page 231)

service area. New hospital with eight general practitioners and one Board certified radiologist. Schools for blind and deaf located in the town. Excellent schools and recreational facilities. PW-11

(Special Openings)

GP or internal medicine specialist urgently wanted for a general practice, predominantly adolescent to geriatric internal medicine, for approximately 6 months in Florence, Alabama. Adequate off-duty with 4 other physicians. Would serve as an ideal introduction to a city requiring more primary care physicians, without financial commitments. PW-20

Montgomery, Alabama: Emergency Physicians. Immediate openings available to eventually organize ED group of four full-time physicians. $45,000 per annum for basic 44 hour week. Flexible work schedules plus fringe benefits. Contact Taylor Morrow, Administrator, Montgomery Baptist Hospital, P. O. Box 11010, Montgomery, Alabama 36111 (205) 288-2100.

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PS Form 3526 July 1971

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"There's no unpleasant regoric taste because there's no regoric. Clever, wouldn't you say? stead, A. H. Robins uses the thera-utic equivalent, powdered opium, promote the production of formed stools and lessen the urge. And Donnagel-PG also provides the demulcent-detoxicant effects of kaolin and pectin, plus the antispasmodic benefits of belladonna alkaloids.

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Atropine sulfate	0.0194 mg
Hyoscine hydrobromide	0.0065 mg
Powdered opium, USP	24.0 mg
(equivalent to paregoric 6 ml.) (warning may be habit forming)	
Sodium benzoate (preservative)	60.0 mg
Alcohol, 5%	

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Robitussin A-C
Robitussin-DM
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Cough Calmer

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Each 5 cc. contains:
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Non-narcotic for 6-8 hr. cough control

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Each 5 cc. contains:
Glyceryl guaiacolate ..... 100 mg.
Dextromethorphan hydrobromide ..... 15 mg.
Alcohol, 1.4%

Robitussin-DM in solid form for "coughs on the go"

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Glyceryl guaiacolate ..... 50 mg.
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Clears nasal and sinus passages as it relieves coughs

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Glyceryl guaiacolate ..... 100 mg.
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MEET THE NEWEST MEMBER OF THE LINE

Comprehensive decongestant action helps control cough and clear stuffy nose and sinuses. Non-narcotic.

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Phenylpropanolamine hydrochloride ..... 12.5 mg.
Alcohol, 1.4%

Select the Robitussin® formulation that treats your patient's individual coughing needs:

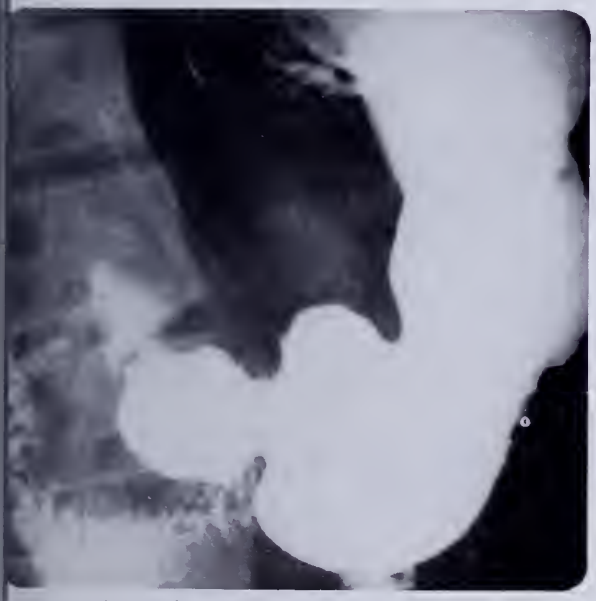
	Expectorant-Demulcent	Cough Suppressant	Long-Acting (6-8 hours)	Nasal, Sinus Decongestant	Non-Narcotic
ROBITUSSIN®	●				●
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The Upper Functional G.I. Disorder

The Pseudo-ulcer

Ulcer-like symptoms: no G.I. pathology



X-ray demonstrates normal stomach.

The patient is convinced he has an ulcer. However, symptoms are not quite typical, and x-ray findings are negative. These findings and the results of additional diagnostic procedures exclude an organic basis for the patient's complaints. A diagnosis of "upper functional gastrointestinal disorder" is made, which is supported by the fact that episodes of painful symptoms coincide with episodes of excessive anxiety, as indicated by the history.

It may be useful to explain to the patient the mechanism by which emotions upset normal G.I. functioning, resulting in hypersecretion and hypermotility and thus causing such symptoms as nausea and epigastric pain. In upper functional gastrointestinal disorders, counseling by the primary physician can often help the patient understand how excessive anxiety may cause flare-ups of G.I. symptoms.

A disproportionate number of patients seen by the general practitioner suffer from functional disorders, as do more than half of those seen by the gastroenterologist.* Where milder cases may respond to counseling alone, if symptoms are severe and disabling to any degree, a suitable regimen may include medication to reduce the symptoms and the excessive anxiety that often provokes these distressing symptoms.

In these cases, Librax as an adjunct can greatly contribute to the course of therapy. Its dual action can offer relief of both painful symptoms and excessive anxiety, because each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br. The antianxiety action of Librium® (chlordiazepoxide HCl) makes Librax exceptional among drugs for certain gastrointestinal disorders associated with excessive anxiety; the clidinium bromide (Quarzan™) component furnishes dependable antisecretory-antispasmodic action. Dosage is flexible; it may be adjusted according to your patient's requirements within the range of 1 or 2 capsules three or four times daily, up to 8 capsules daily in divided doses. Please consult the complete product information regarding precautions and adverse reactions.

*Rome HP, Brannick TL: Orientation and mechanism of functional disorders; clinicophysiologic correlation, chap. 133, in *Gastroenterology*, edited by Bockus HL. Philadelphia, W.B. Saunders Company, 1965, p. 1116.

An adjunct in anxiety-related upper functional G.I. disorders

Librax®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

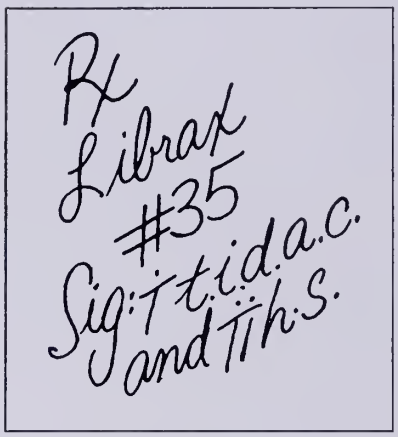
ROCHE

Please see summary of product information on following page.

An adjunct in anxiety-related upper functional G.I. disorders

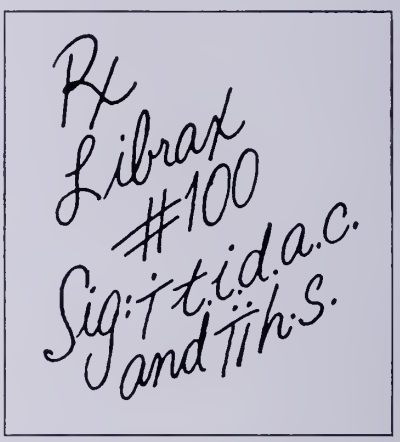
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Initial therapy

The initial prescription allows evaluation of patient response to therapy.



Follow-up therapy

Follow-up therapy with a prescription for 2 to 3 weeks' medication usually helps maintain patient gains.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Symptomatic relief of hypersecretion, hypermotility and anxiety and tension states associated with organic or functional gastrointestinal disorders; and as adjunctive therapy in the management of peptic ulcer, gastritis, duodenitis, irritable bowel syndrome, spastic colitis, and mild ulcerative colitis.

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral ant coagulants; causal relationship has not been established clinic

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsine ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin erup tions, edema, minor menstrual irregularities, nausea and const pation, extrapyramidal symptoms, increased and decreased lit —all infrequent and generally controlled with dosage reductio changes in EEG patterns (low-voltage fast activity) may appe during and after treatment; blood dyscrasias (including agran cytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable durin protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of mouth, blurri of vision, urinary hesitancy and constipation. Constipation ha occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

Dosage: Individualize for maximum beneficial effects. Usual maintenance dose is 1 or 2 capsules, 3 or 4 times a day, before meals and at bedtime. Geriatric patients—see Precautions.

How Supplied: Librax® Capsules, each containing 5 mg chlor diazepoxide hydrochloride (Librium®) and 2.5 mg clidinium bromide (Quarzan™)—bottles of 100 and 500.

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painless injection instrument that uses ordinary disposable syringes



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Radiographic Localization of Stone Fragments During Complicated Renal Stone Surgery

J. W. Davis, M.D. and A. J. Bueschen, M.D.
Birmingham, Alabama

In stone surgery of the renal pelvis and calyces, it is generally accepted that the best operation is the one that removes all stones and stone fragments completely and in the most atraumatic way. The smallest residual stone fragment can seriously compromise the initial and the long term result of surgery. This can be realized initially if a stone fragment drops into and obstructs the ureter, or later by residual stone fragments acting as a nidus for regrowth and serving as a source of infecting organisms which cannot be eradicated.

With appreciation that the best time to remove all fragments is during the initial procedure, a reliable, simple and accurate intra-operative technique of radiologic localization of stone fragments is necessary in more complicated stone surgery such as staghorn calculi and multiple stones.

In the past year, the University of Alabama in Birmingham Urology Service has utilized a method of intra-operative radiography similar to that described by Hanley[1] and Beck[2]. This technique utilizes specific radiography of just the kidney without any surrounding tissues or structures, allowing much better detail and resolution, yet requires only slightly more effort than usual methods of intra-operative X-rays which have considerably less reliability.

Materials & Methods

The equipment used included the following:

(1) A standard portable X-ray unit with special brackets applied.

(2) A sterile stainless steel cone 24 inches long and four inches by five inches at the end.

(3) Special sterilizable X-ray film five and one half inches by four and one half inches which has a special notch in one border to accommodate the renal pedicle. (Kodak X-ray Film for Kidney Surgery)

A flank incision excising the 12th or 11th rib was performed. The kidney was mobilized extensively so that it could be elevated high in the wound.

The surgeon attached the sterile steel cone to the brackets on the portable X-ray machine. The kidney was elevated and the small renal X-ray film was placed against the anterior surface of the kidney and the cone attached to the X-ray unit was guided into position over the posterior surface of the kidney, thus placing the kidney between the film and the cone. (Figure 1) An exposure was made using a constant machine setting, previously established in the autopsy room.

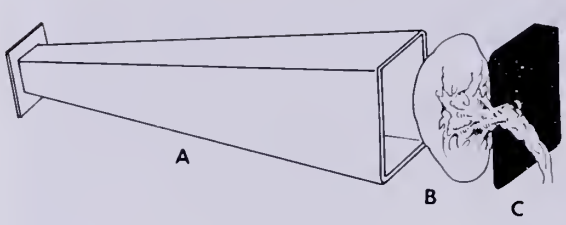


Figure 1: A. Sterile cone, B. Kidney, C. Kodak x-ray film.

The stone or stones were removed and another exposure was made. Any residual fragments were easily identified and removed as indicated. The usual case required two or three exposures before complete removal of stone fragments.

Case Report

E. P., (E 33-21-23) a 57 year old white female presented with right flank pain and gross hematuria. Evaluation revealed a right staghorn calculus with E coli and Proteus mirabilis infection. Blood urea nitrogen (BUN) was 12 mg. per cent, and serum creatinine was 0.9 mg. per cent.

On 4/5/74, she underwent a right pyelolithotomy and nephrolithotomy with incomplete removal of the staghorn calculus. Intraoperative X-rays revealed three small calculus fragments in the lower pole. A segmental nephrectomy was done to remove the remaining fragments. Additional X-rays confirmed that no residual stones remained. (Figure 2)

One month later, follow-up evaluation, showed no evidence of stone nor infection.

Discussion

A complete removal of all stones and stone fragments in an atraumatic way is necessary to obtain the best long term result.

In solitary renal pelvic stones or ureteral stones, the described technique of intra-operative radiography is usually not necessary. However, in more complicated cases involving staghorn calculi, multiple stones or large

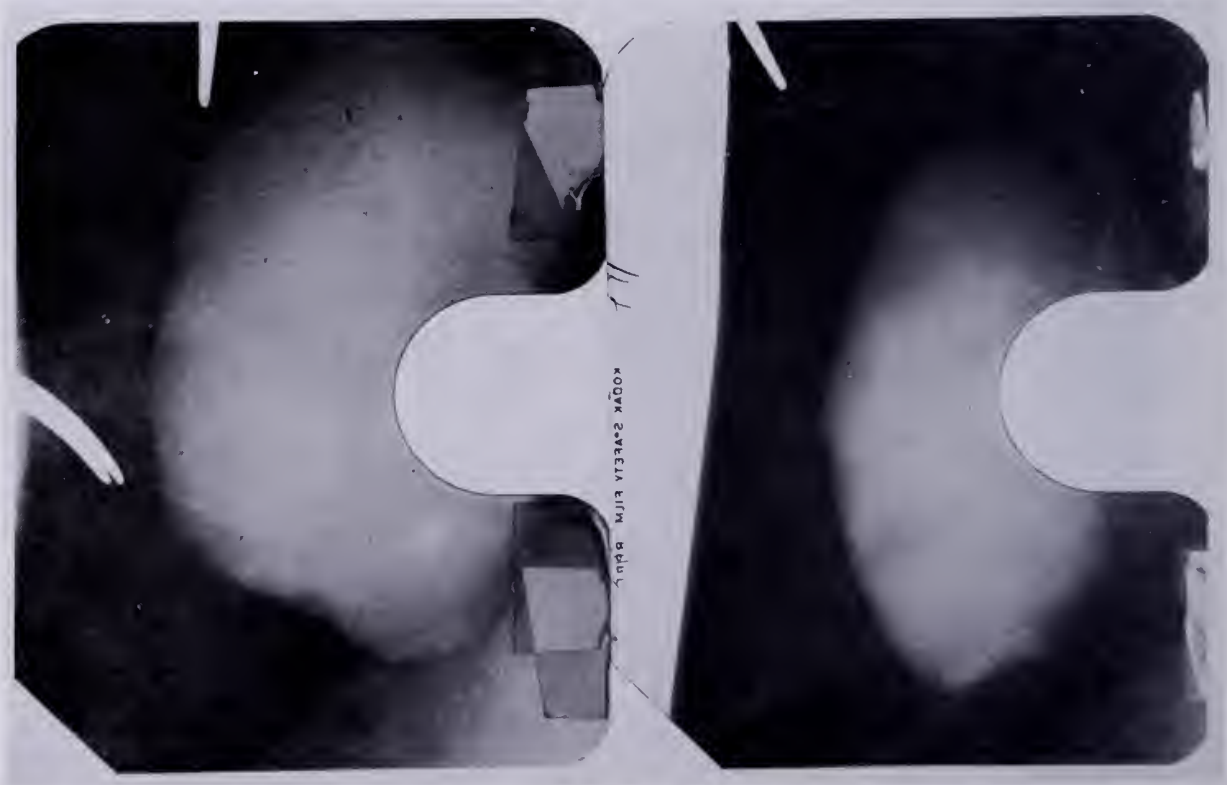


Figure 2: Intra-operative kidney x-ray—A. After removal of most of staghorn calculus, B. After lower pole segmental nephrectomy.

friable infection stones, the sterile cone technique of specific renal radiography is invaluable. The utilization of the cone makes the distance constant, thus allowing the radiologic technician to use a predetermined exposure which provides good quality films at all times.

Utilization of this technique requires a little more effort and time (approximately 30 minutes anesthesia time), but it is worth the effort to both patient and surgeon. The technique gives much better resolution and detail of the kidney and stone fragment allowing better localization and thus less traumatic removal. This technique allows the surgeon to identify and remove residual stone fragments, which otherwise might not be recognized.

Summary

A technique of intra-operative renography for stone surgery has been described. Knowledge of the reliable method is valuable to anyone involved with renal stone disease, including the family practitioner, radiologist and the urologic surgeon.

References

1. Hanley, J. G.: Accurate Surgical Localisation of Renal Calculi. Brit. J. Urology, 39:159, 1967.

2. Beck, A. D.: Intra-operative Radiography in Conservative Surgery for Renal Calculi. J. Urology, 110:494, 1973.

Send correspondence to: Anton J. Bueschen, M.D., Division of Urology, UAB-University Station, Birmingham, Alabama 35294.

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(Continued on Page 275)



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Adverse reactions: Atropine effects include dryness of skin and mucous membranes, flushing and urinary retention. Other side effects with Lomotil include nausea, sedation, vomiting, swelling of the gums, abdominal discomfort, respiratory depression, numbness of the extremities, headache, dizziness, depression, malaise, drowsiness, coma, lethargy, anorexia, restlessness, euphoria, pruritus, angioneurotic edema, giant urticaria and paralytic ileus.

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Usage in Pregnancy: In pregnancy, nursing mothers and women who might bear children, weigh potential benefits against hazards. Inhibition of lactation may occur.

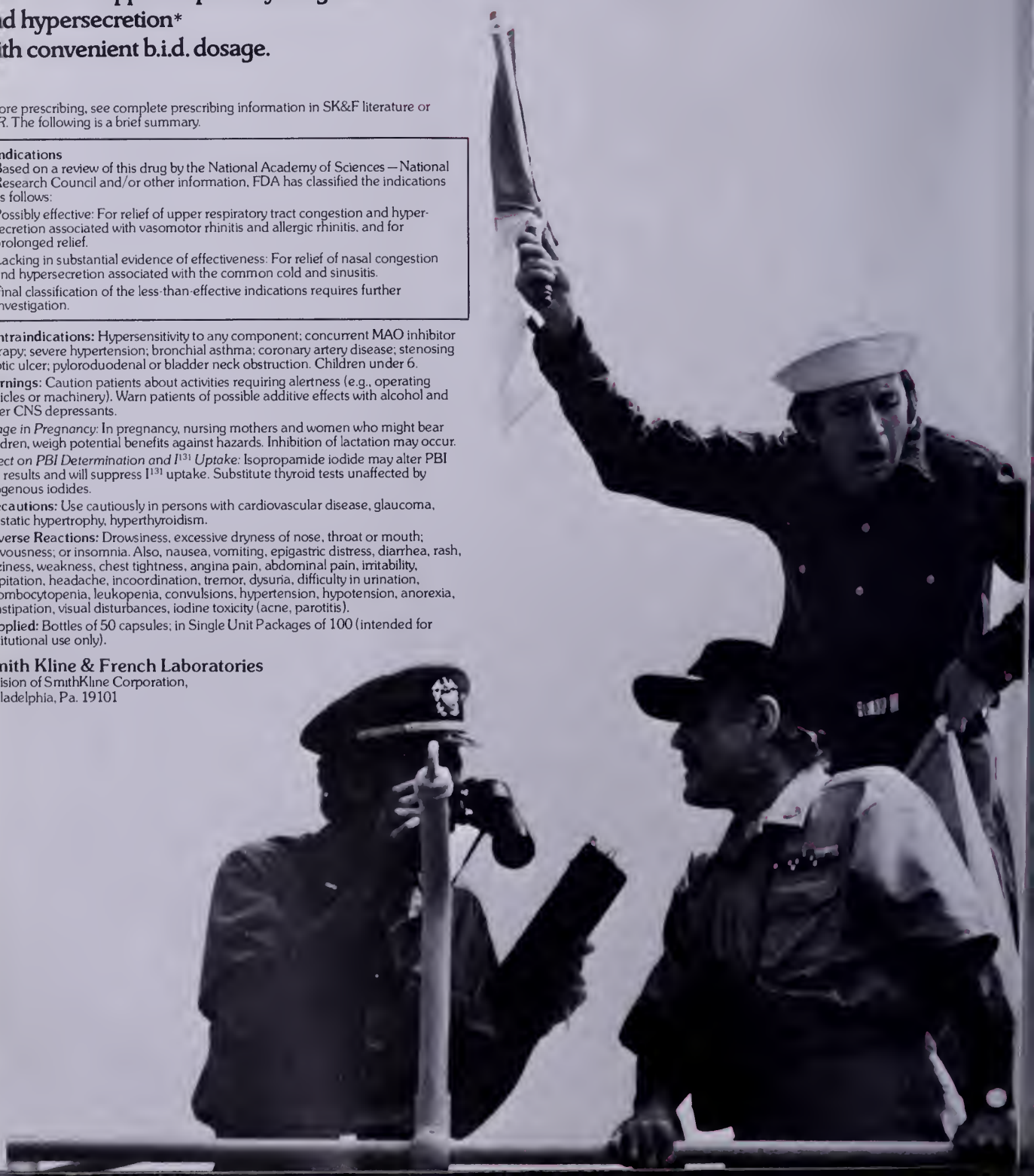
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Physician's Assistants and Rural Health Care: A Study of Physician's Attitudes

by
Charles L. Joiner, Ph.D.
and
Albert M. Harris, MHA

EDITOR'S NOTE: *The opinions expressed here reflect that of the author. They do not reflect those of the editorial review board of this journal.*

BACKGROUND AND PURPOSE OF THE STUDY

Throughout the United States, in both rural and urban areas, there is a rising demand for physician's services, a rising demand which the present relatively fixed supply is unable to satisfy.[1] Reasons for the rising demand include: increasing population, increased incomes of the population, and better and more comprehensive medical insurance coverage available to more people. Additionally, people today expect more medical care as being a basic human right to which all are entitled. Rising expectations for more and better medical care can be attributed to better education of the population and constant exposure of the population via the media to legislation on medical care, the latest developments in medical care, and the glamour of medical theatrical productions.

The resulting shortage of physicians is more evident in some areas than in others.[2] The problem is especially acute in rural areas of Alabama. There are 33 Alabama counties which have no community with a population larger than 10,000. These 33 counties had a combined population of 613,000 compared to 640,000 in Jefferson County in 1970. However, these 33 counties had only 198 physicians compared to 763 in Jefferson County in 1972 (see Table 1: Populations Compared to Number of Physicians in Thirty-Three Counties in Alabama Having No Community Larger than 10,000 Inhabitants).

An obvious answer to the shortage of physicians is, of course, to produce more physicians. Greater numbers of physicians are being produced in Alabama now than formerly. A second and a third medical school are being formed to increase the number of med-

TABLE 1

POPULATIONS COMPARED TO NUMBER OF PHYSICIANS IN THIRTY-THREE COUNTIES IN ALABAMA HAVING NO COMMUNITY LARGER THAN 10,000 INHABITANTS

County	1970 Population**	1960 Population**	Number of Physicians
Bibb	13,812	14,357	6
Blount*	26,853	25,449	7
Bullock	11,824	13,462	7
Butler	22,007	24,560	9
Cherokee*	15,606	16,303	5
Chilton*	25,180	25,693	6
Choctaw	16,589	17,870	5
Clarke	26,724	25,738	13
Clay*	12,636	12,400	5
Cleburne*	10,996	10,911	2
Conecuh	15,645	17,762	3
Coosa	10,662	10,726	0
Crenshaw	13,188	14,909	6
DeKalb*	41,981	41,417	11
Fayette	16,252	16,148	7
Geneva	21,924	22,310	7
Greene	10,650	13,600	4
Hale	15,888	19,537	4
Henry	13,254	15,286	4
Lamar	14,335	14,271	5
Lawrence	27,281	24,501	9
Lowndes	12,987	15,417	3
Marengo	23,819	27,098	11
Marion	23,788	21,837	8
Monroe	20,883	22,372	7
Perry	15,388	17,358	6
Pickens	20,326	21,882	5
Randolph*	18,331	19,477	8
St. Clair*	27,956	25,388	5
Sumter	16,974	20,041	7
Washington	16,241	15,372	4
Wilcox	16,303	18,739	4
Winston	16,654	14,858	5
	612,847	637,049	198

*Chosen to be the subject of this study.
**Source: U. S., Department of Commerce, Bureau of the Census, 1970 Census of the Population: Number of Inhabitants: Alabama, Washington, D. C.: Government Printing Office, 1971, 2-18 to 2-24.

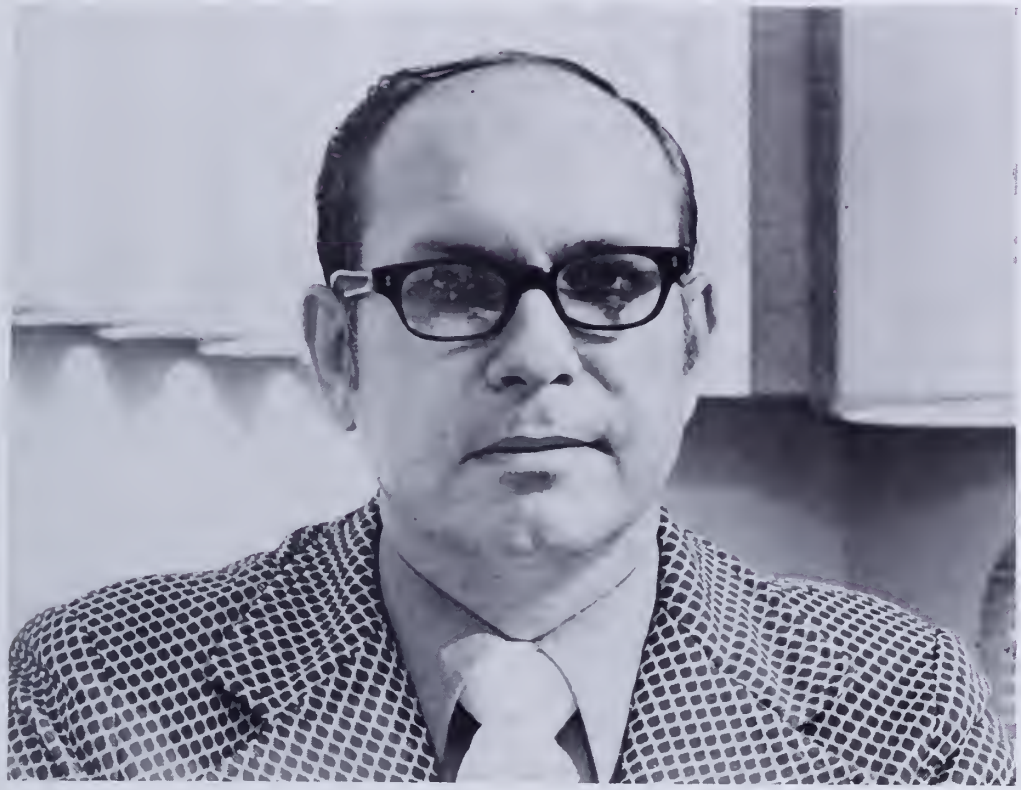
ical college graduates. The greater number of physicians produced may well alleviate the problem somewhat in a few years. Yet, the problem of having relatively more of the graduates practice in large cities will probably remain. Hospitals having the best equipment, facilities, and services are generally located in large cities, as are the best restaurants, golf courses, shopping centers and other obvious advantages of the metropolis. Still other benefits accruing to the city-dwelling physicians are emergency physicians to take calls at the emergency room of the hospital, a more rapid establishment of a new practice, and a certain anonymity not available in smaller communities.

Because of the difficulty of enticing other physicians to practice in small communities, because of rising demand for physicians' services, and because of the pending retirement of many older physicians, the physicians already established in the smaller communities will be asked to give more medical care. In order for the physicians to give more medical care they can either work longer hours or hire additional help. In many cases the physicians are working 70 to 90 hours in their usual week with some weeks having even more working hours in them. At the same time, these physicians may already have two, three, four, or five employees performing various tasks for them. For the physicians to get just one additional nurse, janitor, or another skilled laborer would not help the physicians to shorten their working hours. They need someone who can take over part of the work which they have not yet been able to delegate to their present employees. Since the ideal employee—another physician—is relatively unavailable, the logical new employee seems to be the physician's assistant.

This idea of utilizing paramedics to extend physician's practices is not new. The apprentice-helper to the physician was once the logical physician-trainee. Such assistants in one form or another can be found in most European countries and are utilized particularly extensively in the Soviet Union.[3] In this country it is a common practice for physicians to have at least a secretary-bookkeeper-appointment-maker working for them and usually also to employ a practical nurse or registered nurse. In modern group practice, nurses, laboratory technicians, and other medical technicians are often employed to see the patient before or immediately after the physician sees him. At some time in the past, drawing blood, giving injections, and even taking temperatures and blood pressure were exclusive duties for only the physician to perform.[4,5] Physicians at one time did their own blood analyses, urinalyses, and X-ray examinations. Now these duties have been relinquished to paramedical technicians. In order for a physician to utilize a physician's assistant, the physician will be required to relinquish even more tasks which have been traditionally within his domain of personal labor. The key determinant to the usefulness of a physician's assistant is the ability of the physician to cease performing routine, traditional tasks and to assign authority for these tasks to the assistant. Each physician will have to make personal decisions about task delegation on the basis of such things

(Continued on Page 254)

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(Continued from Page 252)

as the current legality of delegation, the ability of a particular paramedic, the desires and needs of the patients, the physician's own ability to delegate and supervise work, and the effects on the physician's income.

The purpose of this study was to discover the attitudes concerning the use of the physician's assistant held by physicians who reside in the more sparsely populated areas of Alabama. The relationships between these attitudes and certain attitude influencing factors were also investigated.

THE HYPOTHESES OF THE STUDY

The previous discussion of the shortage of physicians has underscored the need for professional medical services in rural areas in Alabama and the potential for utilizing physician's assistants. In order to determine the attitudes (and some influencing factors) of physicians practicing in small communities in Alabama toward the concept of the physician's assistant, several hypotheses were developed and tested.

The major hypothesis of this study was that a majority of physicians practicing in small communities in Alabama have favorable attitudes toward the concept of the physician's assistant. For purposes of this study the physician's assistant (hereafter called the PA), which the survey instrument referred to, was the PA trained to help the general practitioner.

A second hypothesis was that favorable attitudes of the physicians is related to their perception of need for the PA and related to their desires to actually have a PA in their employment. The physicians were simply asked if they felt a need existed for the PA. If a physician replied "yes," then he was considered to have perceived a need.

A third hypothesis of the study was that there was a relationship between the number of hours a physician estimated he worked each week and his desire for hiring a PA. This hypothesis is based upon the idea that the length of a physician's work-week is probably related to his desire to hire a PA.

DATA ANALYSIS

Survey Sample

The original population of physicians for the survey consisted of the 49 in the eight selected counties of Alabama (see Table 1, page 2). Of the 49 physicians originally selected, three had retired, and one had moved to another county. Of the remainder one refused to participate because of a physical handicap, and one continued to insist on later appointment times and was eventually eliminated from the sample population. However, one new physician had moved into the area surveyed so that the survey actually included 44 physicians. Of the 44 physicians surveyed, six reported that they were semi-retired. As a result, their responses were omitted from some of the analysis.

Attitudes of Physicians[6]

Of the 44 physicians questioned, 36 or about 82% responded with answers indicating favorable attitudes toward the concept of the PA; that is, they scored 59 or fewer points on the attitude questionnaire.[7] The distribution of the scores on the test for physicians is shown in Table 2 and Figure 1.

TABLE 2

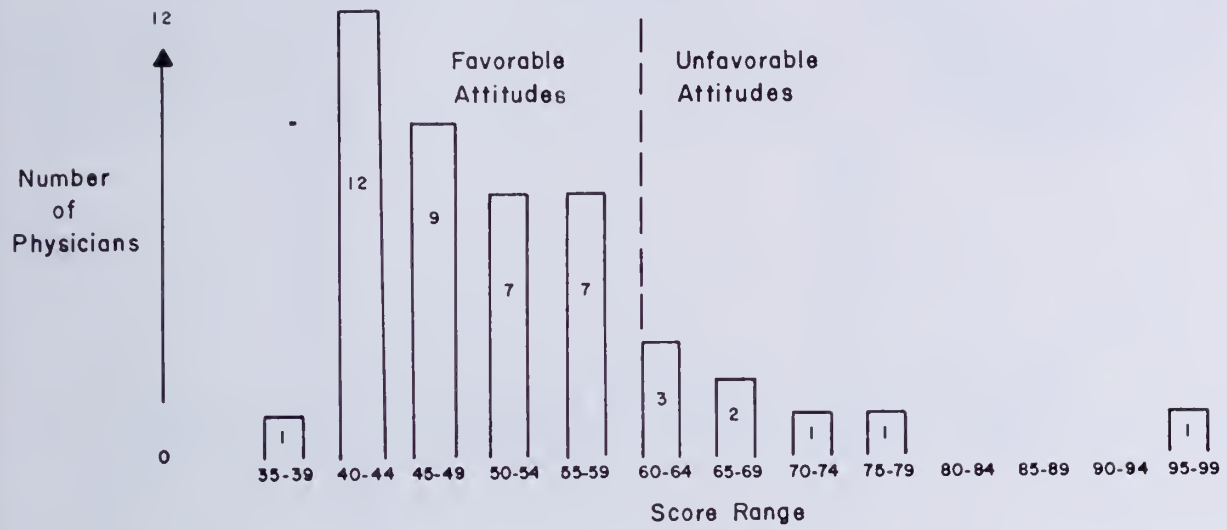
DISTRIBUTION OF SCORES OF PHYSICIANS ON ATTITUDE QUESTIONNAIRE

Scores	Number in Distribution Class	Percentage in Class	Cumulative Percentages
35-39	1	2.3	2.3
40-44	12	27.3	29.6
45-49	9	20.5	50.1
50-54	7	15.9	66.0
55-59	7	15.9	81.9
60-64	3	6.8	88.7
65-69	2	4.5	93.2
70-74	1	2.3	95.5
75-79	1	2.3	97.8
80-84	0	.0	97.8
85-89	0	.0	97.8
90-94	0	.0	97.8
95-99	1	2.3	100.1
Total	44	100.1	100.1

Even if the non-respondents are considered as having unfavorable attitudes toward the concept of the PA, then of the 49 physicians eligible to be surveyed, 36 or about 73 per cent indicated attitudes favorable to the PA.

Figure 1

Distribution of Attitude Scores of Physicians



Thus, the major hypothesis of the paper was accepted, i.e., the majority of physicians practicing in the eight studied counties indicated attitudes favorable to the concept of the PA. Although physicians studied were not selected on a random basis, it may be that the sample is representative of physicians in smaller communities in Alabama. If the sample is representative of all the physicians practicing in smaller communities, then the 95 per cent confidence interval of the proportion having favorable attitudes would be $70.1\% < 73.5\% < 76.9\%$. The following formula for the standard error of proportion was used in the calculation of this interval.[8]

$$\delta_p = \sqrt{\frac{\pi(1-\pi)}{n} \cdot \frac{N-n}{N-1}} = \sqrt{\frac{(0.735)\ (0.265)}{49} \cdot \frac{198-49}{197}} \simeq 1.7$$

$$1.96\delta_p = 3.4\%$$

Alternately, if those five non-respondents are viewed neutrally so that the higher percentage (82%) of favorable attitudes is used, the formula becomes:

$$\delta_p = \sqrt{\frac{(0.818)\ (0.182)}{44} \cdot \frac{198-44}{197}} \simeq 1.63$$

$$1.96\delta_p = 3.2\%,$$

and the 95 per cent confidence interval for favorable attitudes in physicians practicing in smaller communities becomes:

$$78.6\% < 81.8\% < 85.0\%.$$

Likewise, at least 60% of the physicians in each county scored less than 60 points on the attitude questionnaire. The percentage of respondents having favorable scores and the percentage of respondents having unfavorable scores in each county is presented in Table 3 and Figure 2. The majority of physicians in the selected communities do have favorable attitudes. The major hypothesis of the study was accepted.

TABLE 3

NUMBER AND PERCENTAGE OF QUESTIONNAIRES INDICATING FAVORABLE AND UNFAVORABLE ATTITUDES OF PHYSICIANS BY COUNTY OF PRACTICE

	Favorable Responses		Unfavorable Responses		Nonrespondents	
County	Number	%	Number	%	Number	Total
County A	3	60%	2	40%	2	7
County B	5	83%	1	17%	0	6
County C	5	100%	0	0	0	5
County D	2	100%	0	0	0	2
County E	7	78%	2	22%	2	11
County F	5	83%	1	17%	1	7
County G	4	80%	1	20%	0	5
County H	5	83%	1	17%	0	6
Total	36		8		5	49
Percent	73.5%		16.3%		10.2%	100.0%

Relationship Between Attitude and Perceived Need

As was expected, there was a definite relationship between attitude and perceived need. To the question, "Do you think there

(Continued on Page 258)

Why is Gantanol® (sulfamethoxazole) basic therapy in nonobstructed urinary tract infections?

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Acute, recurrent or chronic nonobstructed urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms. **Note: Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides, especially in chronic or recurrent urinary tract infections.** Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Sulfonamide hypersensitivity; pregnancy at term and during nursing period; infants less than two months of age.

Warnings: Safety during pregnancy has not been established. Sulfonamides should not be used for group A beta-hemolytic streptococcal infections and will not eradicate or vent sequelae (rheumatic fever, glomerulonep of such infections. Deaths from hypersensitivity tions, agranulocytosis, aplastic anemia and other dyscrasias have been reported and early clinical signs throat, fever, pallor, purpura or jaundice) may indicate s blood disorders. Frequent CBC and urinalysis with micros examination are recommended during sulfonamide therapy. Ir cient data on children under six with chronic renal disease.

Precautions: Use cautiously in patients with impaired re hepatic function, severe allergy, bronchial asthma; in glucc phosphate dehydrogenase-deficient individuals in whom related hemolysis may occur. Maintain adequate fluid inta prevent crystalluria and stone formation.

Adverse Reactions: *Blood dyscrasias* (agranulocytosis, tic anemia, thrombocytopenia, leukopenia, hemolytic anemia

Because it is considered a good choice...

- for efficacy in nonobstructed cystitis, pyelonephritis and pyelitis
- for control of susceptible *E. coli, Klebsiella-Aerobacter, Staph. aureus, Proteus mirabilis* and, less frequently, *Proteus vulgaris*
- for prompt antibacterial blood and urine levels in from 2 to 3 hours after initial 2-gram adult dose
- for economical around-the-clock coverage
- for maximum patient cooperation with easy-to-remember B.I.D. dosage

Basic Therapy

Gantanol®

(sulfamethoxazole)

Tablets/Suspension (0.5 Gm) (0.5 Gm/teasp.)

a, hypoprothrombinemia and methemoglobinemia); *allergic ctions* (erythema multiforme, skin eruptions, epidermal necroly-, urticaria, serum sickness, pruritus, exfoliative dermatitis, ana-lactoid reactions, periorbital edema, conjunctival and scleral ection, photosensitization, arthralgia and allergic myocarditis); *trointestinal reactions* (nausea, emesis, abdominal pains, hepa-, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* adache, peripheral neuritis, mental depression, convulsions, xia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous ctions* (drug fever, chills, toxic nephrosis with oliguria and uria, periarteritis nodosa and L.E. phenomenon). Due to certain emical similarities with some goitrogens, diuretics (acetazola-de, thiazides) and oral hypoglycemic agents, sulfonamides have used rare instances of goiter production, diuresis and hypoglyc-mia as well as thyroid malignancies in rats following long-term ministration. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis).

Usual adult dosage: 2 Gm (4 tabs or teasp.) initially, then 1 Gm *b.i.d.* or *t.i.d.* depending on severity of infection.

Usual child's dosage: 0.5 Gm (1 tab or teasp.)/20 lbs of body weight initially, then 0.25 Gm/20 lbs *b.i.d.* Maximum dose should not exceed 75 mg/kg/24 hrs.

Supplied: Tablets, 0.5 Gm sulfamethoxazole; Suspension, 0.5 Gm sulfamethoxazole/teaspoonful.

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

(Continued from Page 255)

is a need for the physician's assistant in delivery of health care in small communities in Alabama?", 30 physicians answered "yes." Ten physicians answered "no," and four answered "perhaps," "maybe," or that they "did not know." The 68 per cent affirmative answers are somewhat higher than the 60 per cent in other reported surveys.[9],[10] All 30 of the physicians perceiving the need had favorable attitudes toward the concept. However, two of those with favorable attitudes answered "no" to the need question, and four others were "uncertain." (See Table 4.) Obviously, perception of "need" for the PA and a favorable attitude to the concept are closely related. Therefore, Hypothesis II was accepted.

This relationship was brought more sharply into focus through the evaluation of the third hypothesis—a physician's d e s i r e for hiring a PA was related to the number of hours he was required to work each week.

TABLE 4

RELATIONSHIP BETWEEN ATTITUDES OF PHYSICIANS AND THEIR PERCEPTIONS OF NEED FOR THE PHYSICIAN'S ASSISTANTS

	Perception of Need					
Attitude	Perceived Need		Did Not Perceive Need		Total	
		(%)		(%)		(%)
Number Favorable	30	(100)	6	(43)	36	(82)
Number Unfavorable	0	(0)	8	(57)	8	(18)
Total	30	(100)	14	(100)	44	(100)

This "desire for hiring a PA" was considered demonstrated only if a physician said he wanted to hire a PA "now." By then comparing the hours worked by this "would hire now" group to the hours worked by the other physicians, it was shown that the desire to hire a PA tended to be related to how busy a physician estimates he is (see Table 5).

Simple additional evidence reflecting this relationship between the size of practice (or perceived size) and the desire for a PA can be seen in the reasons given for not wanting a PA. Seven of the 26 (27 per cent) physicians in full-time practice who did not want a PA expressed the feeling that their practice was too small to support a PA. With the

(Continued on Page 267)

Rondomycin®
(methacycline HCl)

CONTRAINDICATIONS: Hypersensitivity to any of the tetracyclines.
WARNINGS: Tetracycline usage during tooth development (last half of pregnancy to eight years) may cause permanent tooth discoloration (yellow-gray-brown), which is more common during long-term use but has occurred after repeated short-term courses. Enamel hypoplasia has also been reported. **Tetracyclines should not be used in this age group unless other drugs are not likely to be effective or are contraindicated.**
Usage in pregnancy. (See above **WARNINGS** about use during tooth development.)
Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.
Usage in newborns, infants, and children. (See above **WARNINGS** about use during tooth development.)
All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrease in fibula growth rate observed in prematures given oral tetracycline 25 mg/kg every 6 hours was reversible when drug was discontinued.
Tetracyclines are present in milk of lactating women taking tetracyclines.
To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The anti-anabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.
Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.
PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.
In venereal disease, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.
Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.
In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).
Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.
Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.
ADVERSE REACTIONS: Gastrointestinal (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in the anogenital region.
Skin: maculopapular and erythematous rashes; exfoliative dermatitis (uncommon). Photosensitivity is discussed above (See **WARNINGS**).
Renal toxicity: rise in BUN apparently dose related (See **WARNINGS**).
Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.
Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.
Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.
Over prolonged periods, tetracyclines have been reported to produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.
USUAL DOSAGE: Adults – 600 mg daily, divided into two or four equally spaced doses. More severe infections: an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. Gonorrhea: In uncomplicated gonorrhea, when penicillin is contraindicated, "Rondomycin" (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule: 900 mg initially, followed by 300 mg q.i.d. for a total of 5.4 grams.
For treatment of syphilis, when penicillin is contraindicated, a total of 18 to 24 grams of "Rondomycin" (methacycline HCl) in equally divided doses over a period of 10-15 days should be given. Close follow-up, including laboratory tests, is recommended.
Eaton Agent pneumonia: 900 mg daily for six days.
Children – 3 to 6 mg/lb/day divided into two to four equally spaced doses.
Therapy should be continued for at least 24-48 hours after symptoms and fever have subsided.
Concomitant therapy: Antacids containing aluminum, calcium or magnesium impair absorption and are contraindicated. Food and some dairy products also interfere. Give drug one hour before or two hours after meals. Pediatric oral dosage forms should not be given with milk formulas and should be given at least one hour prior to feeding.
In patients with renal impairment (see **WARNINGS**), total dosage should be decreased by reducing recommended individual doses or by extending time intervals between doses.
In streptococcal infections, a therapeutic dose should be given for at least 10 days.
SUPPLIED: "Rondomycin" (methacycline HCl) 150 mg and 300 mg capsules, syrup containing 75 mg/5 cc methacycline HCl.

Before prescribing, consult package circular or latest PDR information.

Rev. 6/77

WALLACE LABORATORIES
CRANBURY, NEW JERSEY 08512



When the focus is on bronchitis due to susceptible strains of *H. influenzae* and pneumococci*

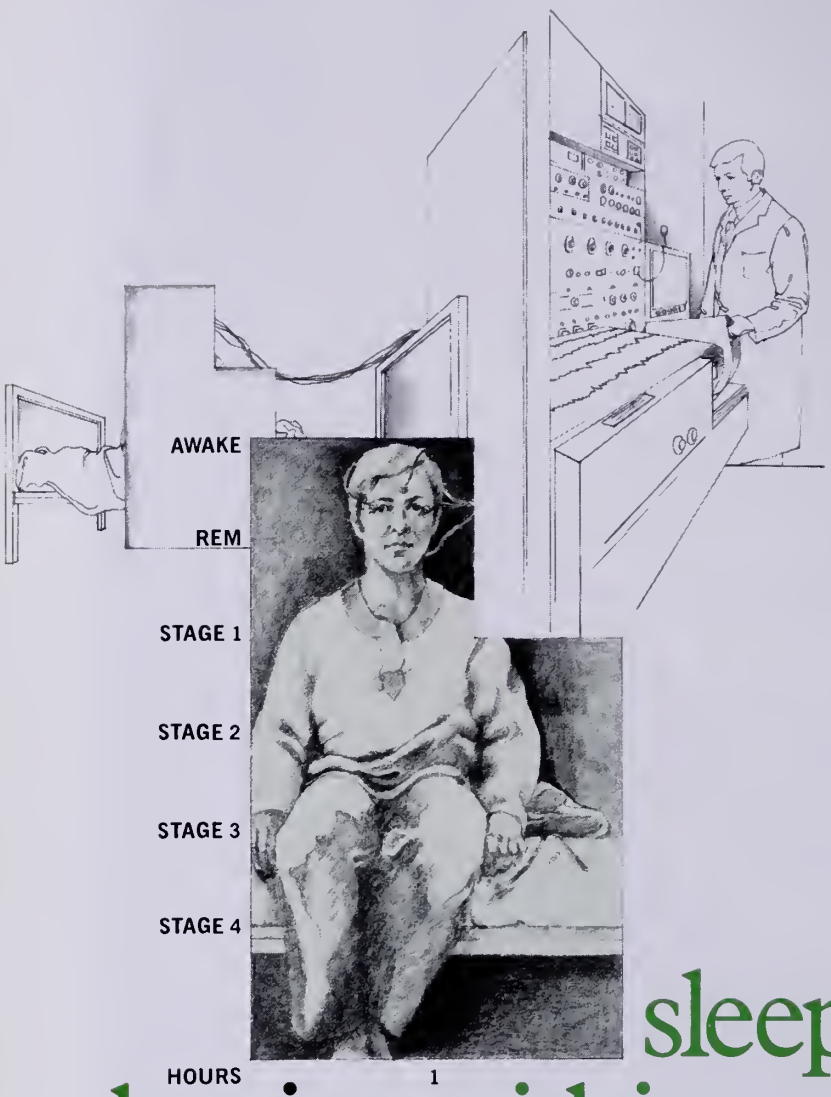
Rondomycin® 300 mg. Capsules

[methacycline HCl]

Delivers from the very first dose:

Studies show that after the first dose serum levels rapidly rise above minimum *in vitro* inhibitory concentrations

*Since many strains are known to be resistant, routine sensitivity testing is recommended.



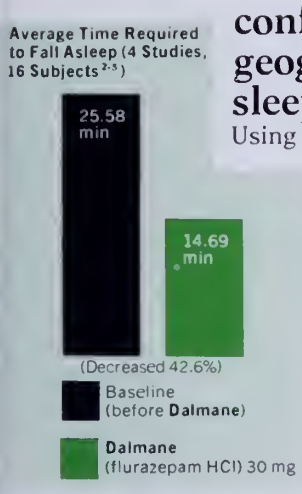
sleep begins within 17 minutes, on average ...

an initial benefit of

Dalmane®
(flurazepam HCl)

proved by a 22-night clinical study of insomnia patients in the sleep research laboratory and at home[1]

Three insomnia patients selected for difficulty falling asleep were administered Dalmane (flurazepam HCl) 30 mg for 14 consecutive nights. Placebo was given for four nights prior to and four nights after Dalmane. Physiologic tracings on Dalmane nights 1-3 showed sleep induction time averaged 13.90 minutes; on Dalmane nights 12-14, 18.80 minutes. Combined average for the 6 monitored drug nights was 16.35 minutes.[1]



confirmed by clinical studies in four geographically separated sleep research laboratories[2-5]

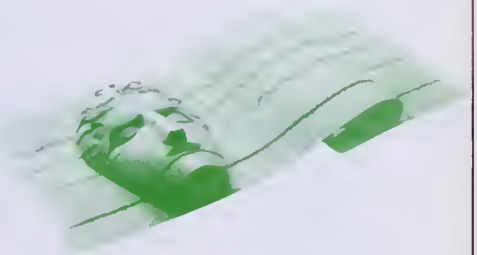
Using a 14-night protocol involving eight insomniac and eight normal subjects, four studies confirmed the sleep-inducing effectiveness of Dalmane (flurazepam HCl) and the reproducibility of this response. On average, one 30-mg capsule induced sleep within 17 minutes. In all these studies, Dalmane induced sleep rapidly, reduced nighttime awakenings, and provided 7 to 8 hours of sleep without repeating dosage[2-5]

Dalmane (flurazepam HCl) induces and maintains sleep, with relative safety

Dalmane is generally well tolerated; morning "hang-over" has been relatively infrequent. While dizziness, drowsiness, lightheadedness and the like have been noted most often, particularly in the elderly and debilitated, physicians should be aware of the possibility of more serious reactions, as noted below.

Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.
Contraindications: Known hypersensitivity to flurazepam HCl.
Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.
Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.
Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.
Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.
Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



when restful sleep is indicated

Dalmane®
(flurazepam HCl)

One 30-mg capsule *h.s.* — usual adult dosage (15 mg may suffice in some patients).
One 15-mg capsule *h.s.* — initial dosage for elderly or debilitated patients.

- **induces sleep within 17 minutes, on average**
- **reduces nighttime awakenings**
- **sustains sleep 7 to 8 hours, on average, without repeating dosage**

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2. Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington DC, May 3-7, 1971
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5. Dement WC: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ

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The Role of the Detail Man

Opinion & Dialogue



Dr. Willard Gobbell
Family Physician
Encino, California

"I may be prejudiced, but I am very much in favor of the detail men I meet. Most of them are knowledgeable about the drugs they promote and can be a great help in acquainting me with new medication."

Family Physician's Perception

I think that most general practitioners in this area feel as I do about the detail man. Over the years I have gotten to know most of the men who visit me regularly and they in turn have become aware of my particular interests and the nature of my practice. They, therefore, limit their discussion as much as possible to the areas of interest to me. Since I usually see the same representative again in future visits, it is in his best interest to supply me with the most honest, factual, as well as up-to-date information about his products.



Dr. Jeremiah Stamler
Chairman
Department of Community Health and Preventive Medicine, and Dingman Professor of Cardiology
Northwestern University Medical School

"In the total picture of dealing with health problems in this countr there is a potential for detail men to play a meaningful role."

The Positive Influence

My contact with representatives and salesmen of the pharmaceutical industry is the type of contact that people in a medical center research people, and academic people have and that's in all likelihc on a somewhat different level from that of the practicing physician.

Let me touch on how I personally perceive the role of the sales representative. These men reach large numbers of health professionals. Thus they could be—and at times actually are—disseminators of useful information. They could consistently serve a real educational function in their ability to discuss their products.

At present they do distribute printed material, brochures and pamphlets—some of it scientifically sound and therefore truly useful—as well as some excellent film produced by the pharmaceutical industry. When they function in thi

l He a Source of Information?

Yes, with certain reservations. he average sales representative is a great fund of information bout the drug products he is re- ponsible for. He is usually able to nswer most questions fully and telligently. He can also supply prints of articles that contain a eat deal of information. Here, o, I exercise some caution. I usu- y accept most of the statements d opinions that I find in the pers and studies which come m the larger teaching facilities. goes without saying that a physi- an should also rely on other urces for his information on harmacology.

aining of Sales Representatives

Ideally, a candidate for the sition as a sales representative a pharmaceutical company ould be a graduate pharmacist o has a questioning mind. I don't ink this is possible in every case, d so it becomes the responsibility of the pharmaceutical company to train these individuals comprehensively. It is of very great importance that the detail man's knowledge of the product he represents be constantly reviewed as well as updated. This phase of the sales representative's education should be a major responsibility of the medical department of the pharmaceutical company.

I am certain that most of these companies take special care to give their detail men a great deal of information about the products they produce—information about indications, contraindications, side effects and precautions. Yet, although most of the detail men are well informed, some, unfortunately, are not. It might be helpful if sales representatives were reassessed every few years to determine whether or not they are able to fulfill their important function. Incidentally, I feel the same way about periodic assessments of everyone in the health care field, whether they be general practitioners, surgeons or salesmen.

Value of Sampling

I personally am in favor of limited sampling. I do not use sampling in order to perform clinical testing of a drug. I feel that drug testing should rightly be left to the pharmacology researcher and to the large teaching institutions where such testing can be done in a controlled environment.

I do not use samples as a "starter dose" for my patients. I do, however, find samples of drugs to be of value in that they permit me to see what the particular medication looks like. I get to see the various forms of the particular medication at first hand, and if it is in a liquid form I take the time to taste it. In that way I am able to give my patients more complete information about the particular medications that I prescribe for them.

---

pacity they are indeed useful; rticularly in the fact that they sseminate broadly based educa- nal material and serve not just "pushers" of their drugs.

e Other Side of the Coin

Obviously, the pharmaceuti- l companies are not producing all s material as a labor of love— ey are in the business of selling oducts for profit. In this regard e ambitious and improperly moti- ted sales representative can ert a negative influence on the acticing physician, both by pre- nting a one-sided picture of his oduct, and by encouraging the actitioner to depend too heavily drugs for his total therapy. In ese ways, the salesman has often storted objective reality and ndermined his potential role as an ucator.

e Industry Responsibility

Since the detail man must be information resource as well as epresentative of his particular harmaceutical company, he ould be carefully selected and thoroughly trained. That training, perforce, must be an ongoing one. There must be a continuing battle within and with the pharmaceutical industry for high quality not only in the selection and training of its sales representatives, but also in the development of all of its promotional and educational material.

The industry must be ready to accept constructive as well as corrective criticism from experts in the field and consumer spokesmen, and be willing to accept independent peer review. The better educated and prepared the salesman is, the more medically accurate his materials, the better off the pharmaceutical industry, health professionals and the public—*i.e.,* the patients—will be.

Physician Responsibility

The practicing physician is in constant need of up-dated information on therapeutics, including drugs. He should and does make use of drug information and answers to specific questions supplied by the pharmaceutical representative. However, that information must not be his main source of continuing education. The practitioner must keep up with what is current by making use of scientific journals, refresher courses, and information received at scientific meetings.

The practicing physician not only has the right, but has the responsibility to demand that the pharmaceutical company and its representatives supply a high level of valid and useful information. I feel certain that if such a high level is demanded by the physician as well as the public, this demand will be met by an alert and concerned pharmaceutical industry.

From my experience, my impression is that sectors of the pharmaceutical industry are indeed ethical. I challenge the industry as a whole to live up to that word in its finest sense.

Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D.C. 20005

P·M·A



Effective relief of low back discomfort

The addition of Soma 350 (carisoprodol) to bed rest, moist heat and exercise can help restore range of motion by relieving discomfort associated with acute, painful musculo-skeletal conditions.

Economically...with only one tablet *q.i.d.*

Measure the results yourself. (Wallace will even send you a complimentary goniometer.)

Indications: Carisoprodol is indicated as an adjunct to rest, physical therapy, and other measures for the relief of discomfort associated with acute, painful musculo-skeletal conditions.
Contraindications: Acute intermittent porphyria and allergic or idiosyncratic reactions to carisoprodol or related compounds such as meprobamate, mebutamate, tybamate.
Warnings: *Idiosyncratic Reactions:* Rarely, extreme weakness, transient quadriplegia, dizziness, ataxia, temporary vision loss, diplopia, mydriasis, dysarthria, agitation, euphoria, confusion and disorientation have appeared within minutes or hours of the first dose. These usually subside in several hours but supportive and symptomatic therapy, including hospitalization, may be necessary.

Pregnancy and Lactation: Safe use not established; weigh potential benefits against potential hazards in pregnancy, nursing mothers (concentrations in breast milk are two to four times that in plasma), or women of childbearing potential.

Children Under Twelve: Not recommended.

Potentially Hazardous Tasks: Driving a motor vehicle or operating machinery.

Additive Effects: Effects of carisoprodol and alcohol, other CNS depressants or psychotropic drugs may be additive.

Drug Dependence: Use cautiously in addiction-prone patients.
Precautions: To avoid excess accumulation, use caution in patients with compromised liver or kidney function.
Adverse Reactions: *Central Nervous System:* Drowsiness, dizziness, vertigo, ataxia, tremor, agitation, irritability, headache, depressive reactions, syncope, insomnia, idiosyncratic reaction (see "Warnings").

Allergic or Idiosyncratic: In previously unexposed patients, these are usually seen after 1-4 doses and include rash, erythema multiforme, pruritus, eosinophilia, fixed drug eruption with cross reaction to meprobamate. Asthmatic episodes, fever, weakness, dizziness, angioneurotic edema, smarting eyes, hypotension and anaphylactoid shock may be manifestations of severe reactions. In such cases, stop carisoprodol and initiate appropriate treatment (e.g., epinephrine, antihistamines, corticosteroids).

Cardiovascular: Tachycardia, postural hypotension, facial flushing.

Gastrointestinal: Nausea, vomiting, hiccup, epigastric distress.

Hematologic: Leukopenia and pancytopenia (on carisoprodol plus other drugs).
Usual Adult Dosage: One 350 mg tablet three times daily and at bedtime.
Overdosage: Has produced stupor, coma, shock, respiratory depression, and, very rarely, death. The effects of an overdosage of carisoprodol and alcohol or other CNS depressants or psychotropic agents can be additive even when one of the drugs has been taken in the usual recommended dosage. Empty stomach, treat symptomatically; cautiously give respiratory assistance, CNS stimulants, pressor agents as needed. Carisoprodol is metabolized in the liver and excreted by the kidney. Diuresis and dialysis have been used successfully with related drug meprobamate. Carefully monitor urinary output; avoid overhydration; observe for possible relapse due to incomplete gastric emptying and delayed absorption.

Before prescribing, consult package circular or latest PDR information.

Rev 8/74

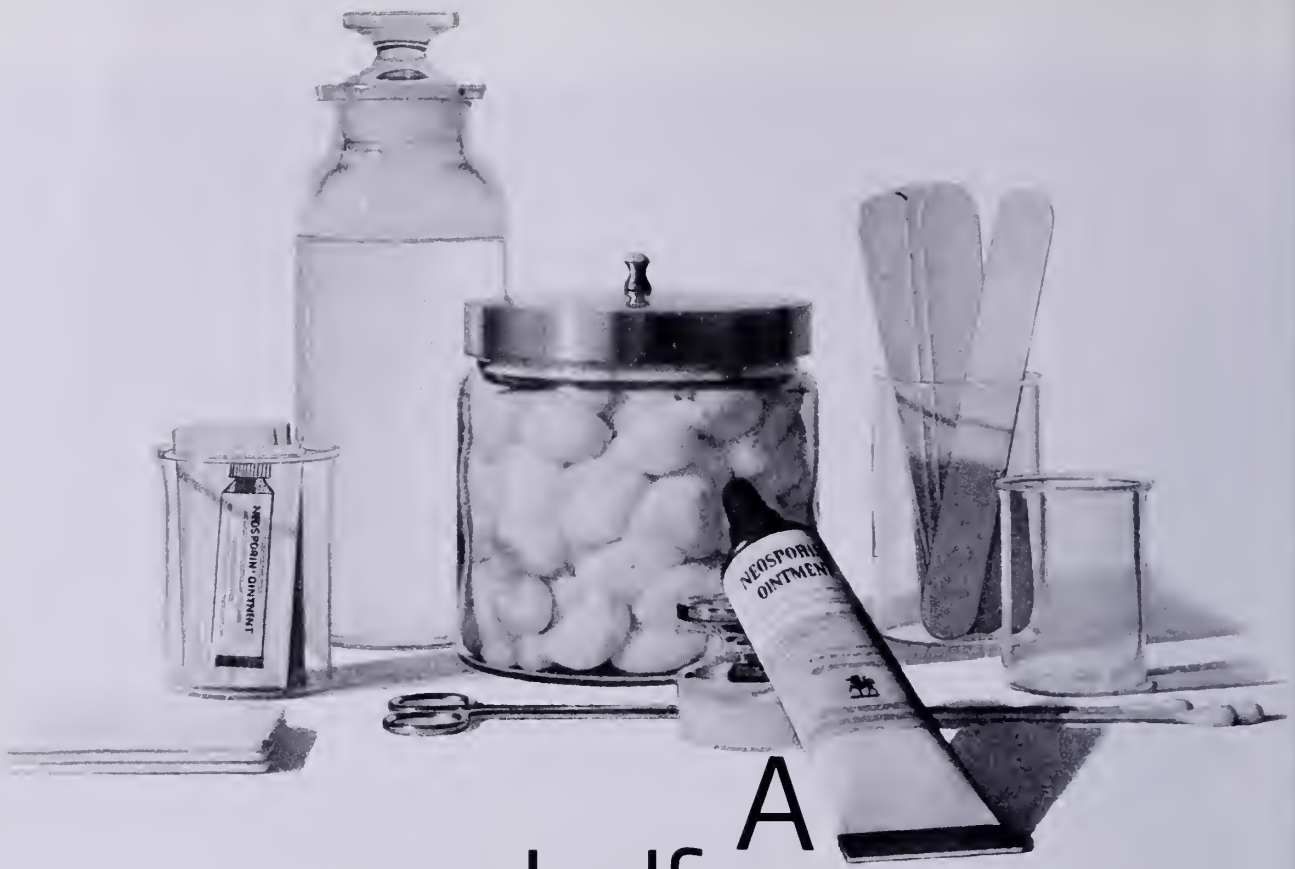
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Soma® 350 its power ma

(carisoprodol) 350 mg tablets



e measured in movement



A half-ounce of prevention

Use it to prevent a topical infection. Or to treat one that's already started. In either case, it's good medicine. Whether for lacerations, burns, open wounds, IV catheter or surgical aftercare. Neosporin® Ointment provides broad antibacterial coverage against common susceptible pathogens. And since it contains three antibiotics that are rarely used systemically, the risk of sensitization is reduced. Neosporin Ointment. A half-ounce of prevention. Also available in a full ounce of prevention and in convenient foil packets.

Neosporin Ointment carried on Apollo and Skylab missions.

Neosporin® Ointment
(polymyxin B-bacitracin-neomycin)

Each gram contains: Aerosporin® brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs.
In tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

INDICATIONS: *Therapeutically,* used as an adjunct to appropriate systemic therapy for topical infections, primary or secondary, due to susceptible organisms, as in: • infected burns, skin grafts, surgical incisions, otitis externa • primary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia) • secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis) • traumatic lesions, inflamed or suppurating as a result of bacterial infection.

Prophylactically, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing.

CONTRAINDICATIONS: Not for use in the eyes or external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of t body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriat measures should be taken if this occurs.

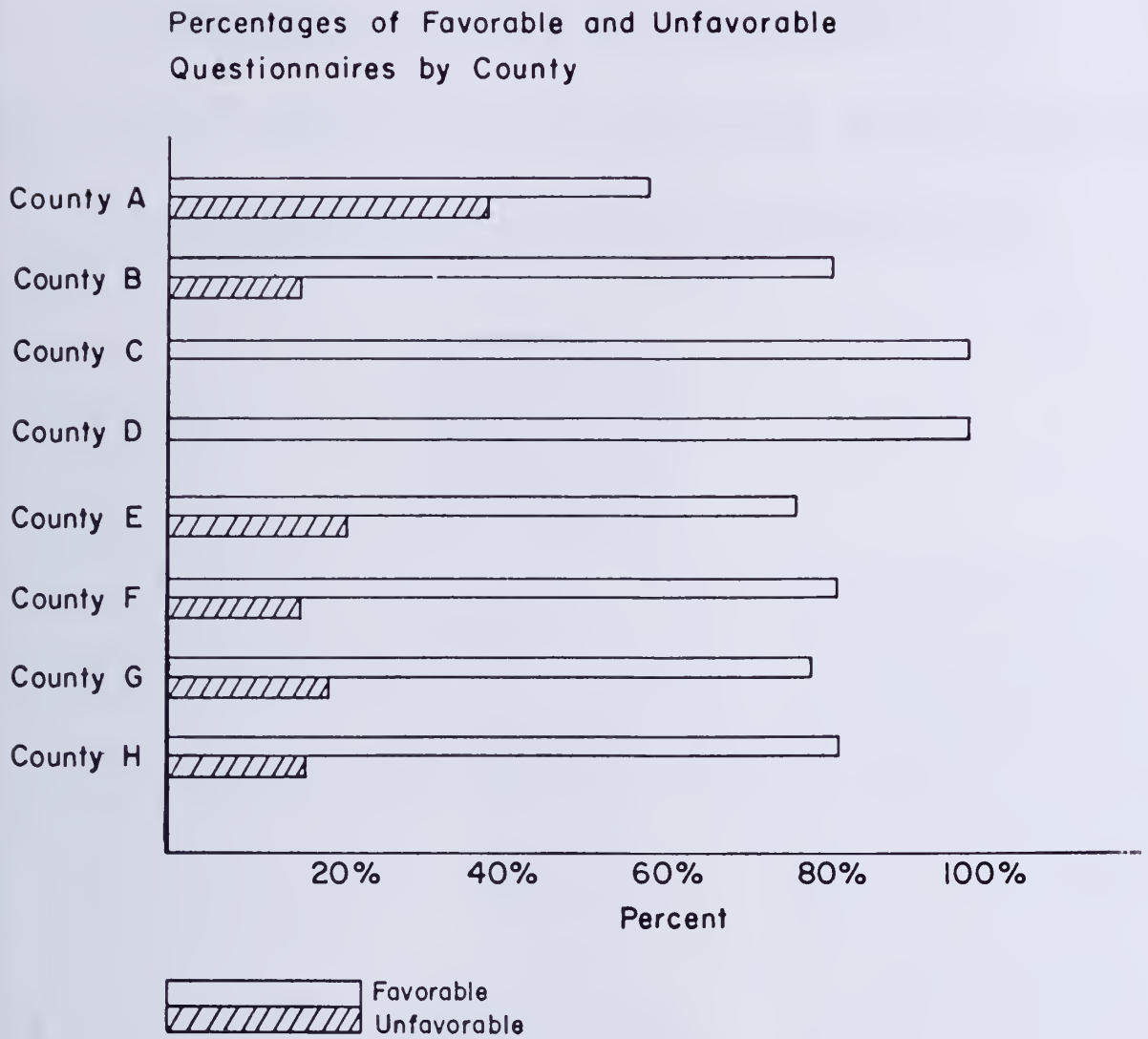
ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of per allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. I

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(Continued from Page 258)

Figure 2



evidence shown in Table 5, Hypothesis III was accepted, i.e., the desire to hire a PA was more likely to be found among those physicians who estimated they worked the most hours each week.

SUMMARY

In an effort to discover clues to the acceptability of the physician's assistant to the professionals who would eventually decide his utility, an effort was made to question all of the physicians in eight rural counties of Alabama. A scientific attitude measuring instrument, designed by the Likert-Thurstone scaling method, was utilized to measure attitudes of the respondents. These attitudes were then compared to other responses about needs for the physician's assistant, so that relationships between attitudes and other factors, which might influence the physicians, could be investigated.

Of 49 physicians residing in the area, 44 were actually questioned. Of the 44 ques-

TABLE 5

HOURS OF PRACTICE EACH WEEK ACCORDING TO PHYSICIAN'S ESTIMATE COMPARED TO DESIRES TO HIRE PHYSICIAN'S ASSISTANT NOW

	Physicians Who Want PA Now	Physicians Who Would Not Or Might Hire PA	Semi-Retired
	n = 8	n = 30	n = 6
Hours of Work Estimated Each Week	55-130	50-95	20-70
Average Hours	85.50	67.17	51.16

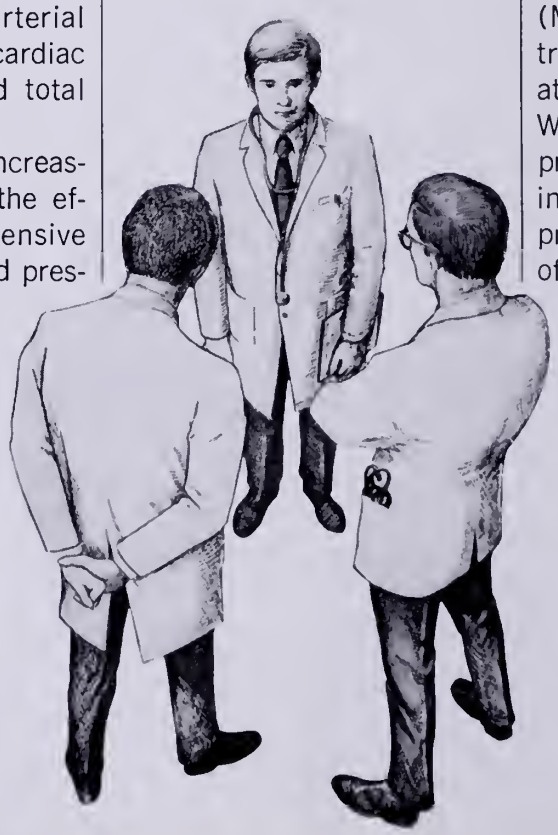
$F_{1,36} = 10.569$ $0.001 < p < 0.005$**

(Continued on Page 271)

The more physicians consider the hemodynamics of lowering blood pressure...

Most physicians now agree on the importance of reducing blood pressure in the hypertensive patient. But high blood pressure exists, of course, only as part of a complete clinical picture. The hemodynamic profile of well-established essential hypertension is characterized by elevated arterial blood pressure, normal cardiac output, and increased total peripheral resistance.

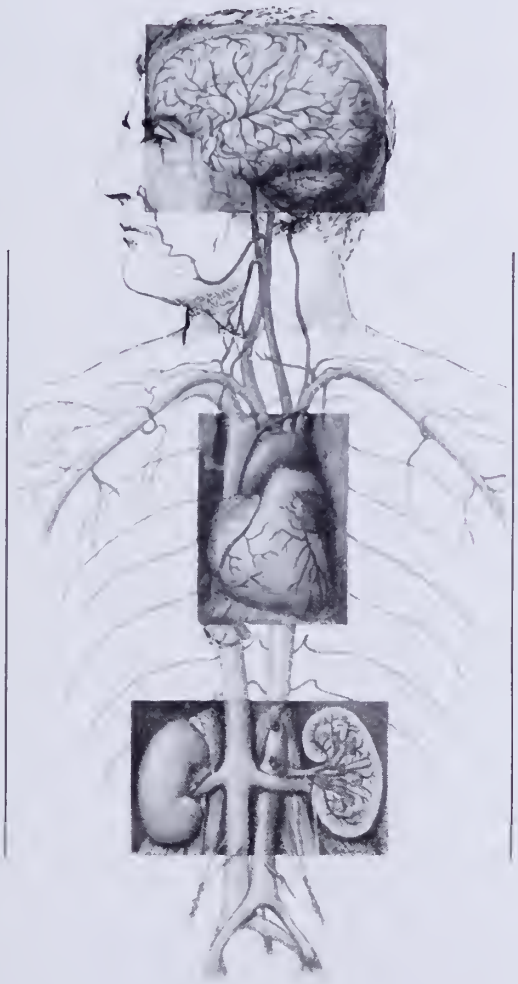
And so, physicians are increasingly concerned with the effects of an antihypertensive agent not only on blood pressure itself but also on the hemodynamic pattern—in short, with the total effect of the drug. *Does* it indeed help lower blood pressure effectively? *Is* peripheral resistance reduced? *Are* cardiac output and renal functions maintained? And, also, is there likely to be drug-induced postural hypotension serious enough to pose a threat to the patient's cerebrovascular status?



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the more physicians rely on this unique antihypertensive



)ering blood pressure. But re are other considerations well. Cardiac output is usu- maintained with no cardiac celeration; in some patients heart rate is actually ved. Peripheral resistance apparently reduced.)OMET does not usually mpromise existing renal ction; it generally does not uce renal blood flow, glo- rular filtration rate, or fil- ion fraction. And ALDOMET ally does not cause sympto- tic postural or exercise otension.

Contraindications include active hepatic disease and known sensitivity to the drug. Use with caution in patients with a history of liver disease or dysfunction. Not recommended in pheochromocytoma or pregnancy.

It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. For more details see the brief summary of prescribing information.

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In most cases of sustained moderate hypertension

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Contraindications: Active hepatic disease, such as acute hepatitis and active cirrhosis. Known sensitivity. Not recommended in pheochromocytoma. Unsuitable in mild or labile hypertension responsive to mild sedation or thiazide therapy. Use cautiously in patients with history of previous liver disease or dysfunction.

Warnings: It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. Read this section carefully to understand these reactions.

With prolonged methyldopa therapy, 10% to 20% of patients develop a positive direct Coombs test, usually between six and twelve months of therapy. Lowest incidence is at daily dosage of 1 g or less. This on rare occasions may be associated with hemolytic anemia, which could lead to potentially fatal complications. One cannot predict which patients with a positive direct Coombs test may develop hemolytic anemia. Prior existence or development of a positive direct Coombs test is not in itself a contraindication to use of methyldopa. If a positive Coombs test develops during methyldopa therapy, determine whether hemolytic anemia exists and whether the positive Coombs test may be a problem. For example, in addition to a positive direct Coombs test there is less often a positive indirect Coombs test which may interfere with cross matching of blood.

At the start of methyldopa therapy, it is desirable to do a blood count (hematocrit, hemoglobin, or red cell count) for a baseline or to establish whether there is anemia. Periodic blood counts should be done during therapy to detect hemolytic anemia. It may be useful to do a direct Coombs test before therapy and at six and twelve months after the start of therapy. If Coombs-positive hemolytic anemia occurs, the cause may be methyldopa and the drug should be discontinued. Usually the anemia remits promptly. If not, corticosteroids may be given and other causes of anemia should be considered. If the hemolytic anemia is related to methyldopa, the drug should not be reinstituted. When methyldopa causes Coombs positivity alone or with hemolytic anemia, the red cell is usually coated with gamma globulin of the IgG (gamma G) class only. The positive Coombs test may not revert to normal until weeks to months after methyldopa is stopped.

Should the need for transfusion arise in a patient receiving methyldopa, both a direct and an indirect Coombs test should be performed on his blood. In the absence of hemolytic anemia, usually only the direct Coombs test will be positive. A positive direct Coombs test alone will not interfere with typing or cross matching. If the indirect Coombs test is also positive, problems may arise in the major cross match and the assistance of a hematologist or transfusion expert will be needed.

Fever has occurred within first three weeks of therapy, sometimes with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first two to three months of therapy. Rarely fatal hepatic necrosis has been reported. These hepatic changes may represent hypersensitivity reactions; periodic determination of hepatic function should be done particularly during the first six to twelve weeks of therapy or whenever an unexplained fever occurs. If fever, abnormalities in liver function tests, or jaundice appear, stop therapy with methyldopa. If caused by methyldopa, the temperature and abnormalities in liver function characteristically have reverted to normal when the drug was discontinued. Methyldopa should not be reinstituted in such patients.

Rarely, reversible reduction in leukocyte count with primary effect on granulocytes has been seen. Reversible thrombocytopenia has occurred rarely. When used with other antihypertensive drugs, potentiation of antihypertensive effect may occur.

Use in Pregnancy and Childbearing Age—Not recommended in pregnancy. In women of childbearing age, weigh potential benefits against possible fetal hazards.

Precautions: Methyldopa may interfere with measurement of: uric acid by the phosphotungstate method, creatinine by the alkaline picrate method, and SGOT by colorimetric methods. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, spuriously high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. Stop drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Patients may require reduced doses of anesthetics; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension has occurred after dialysis in patients on methyldopa because the drug is removed by this procedure.

Adverse Reactions: Sedation, usually transient, may be seen during initial therapy or when dosage is increased. Headache, asthenia, or weakness may be noted as early, transient symptoms. Symptoms associated with effective lowering of blood pressure are occasionally seen and include dizziness, lightheadedness, and symptoms of cerebrovascular insufficiency. Angina pectoris may be aggravated. Symptoms of orthostatic hypotension may occur; if symptoms occur, reduction of dosage is suggested. Bradycardia, nasal stuffiness, mild dryness of mouth, and gastrointestinal symptoms including distention, constipation, flatus, and diarrhea occur occasionally; these generally can be relieved by reducing dosage. Nausea and vomiting have been reported in only a few patients. Sore tongue or "black tongue," pancreatitis, and inflammation of salivary glands may occur.

Weight gain and edema occur infrequently and are relieved by administering a thiazide diuretic; if edema progresses or signs of pulmonary congestion appear, discontinue drug. A rise in BUN has been observed. Other rare reactions include breast enlargement, lactation, impotence, decreased libido, skin rash, mild arthralgia, myalgia, paresthesias, Bell's palsy, parkinsonism, psychic disturbances including nightmares, reversible mild psychoses or depression. Urine exposed to air after voiding may darken because of breakdown of methyldopa or its metabolites.

Note: Dosage should be limited initially to 500 mg daily when following previous antihypertensive agents other than thiazides. Maximal recommended daily dose is 3.0 g. Patients with impaired renal function may respond to smaller doses than patients with normal kidney function. Syncope in older patients has been related to increased sensitivity in those with advanced arteriosclerotic vascular disease; this may be avoided by lower doses. Tolerance occasionally seen either early or late, but more likely between second and third month after initiation of therapy; increased dosage or combined therapy with a thiazide frequently restores effective control.

How Supplied: Tablets, containing 250 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 1000; Tablets, containing 500 mg methyldopa each, in single-unit packages of 100 and bottles of 100.

For more detailed information, consult your MSD representative or see full prescribing information.
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addendum

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Because of the importance of patient motivation, Merck Sharp & Dohme offers "High Blood Pressure," a concise, pocket-sized booklet that defines the patient's own role in the management of hypertension. This booklet is available for you to give to your patients. It is designed to reinforce your explanation of hypertension and it emphasizes the importance of patient understanding in adhering to the regimen you prescribe.

Please ask your Merck Sharp & Dohme Professional Representative or write Professional Service Department, West Point, Pa. 19486 for a supply of this booklet.

(Continued from Page 267)

tioned, 36 had favorable attitudes toward the PA. If the non-random sample of physicians has attitudes statistically similar to the rest of the physicians in rural areas in the state of Alabama, then chances are 95 out of 100 that between 70 per cent and 85 per cent of all the physicians in rural areas of Alabama have attitudes favorable to the PA. Statistically this condition of a favorable attitude was related to a perception of need for the PA, and to a desire to hire a PA. Additionally there was an interrelation between need for the PA, desire to hire the PA and the size of practice of the individual physician. The longer hours the physician worked, the more need for a PA and desire to hire there tended to be. Conversely the reasons most often given for not wanting a PA were: (1) practice was too small, (2) patients might not accept the PA, (3) legal problems were unknown, (4) and duties of the PA were not understood. Thirty-three of the 44 physicians agreed that the PA would be very helpful to the physician.

CONCLUSION

The outstanding finding of this study is that the majority of physicians in eight counties in Alabama have a favorable attitude toward the concept of the physician's assistant. In a number of cases, medical practices are large enough so that physicians desire to hire this special kind of employee, but have not been able to find one. Some other physicians, who feel they could use a physician's assistant, are apprehensive about legal problems, patients' acceptance, and knowing exactly how to use this type of employee. It is apparent that one of the reasons some physicians desire this worker is that the physician feels he works too many hours, and that the PA possibly could help him shorten his working hours.

It should be kept in mind that the sample used for this study was not randomly selected. However, the sampled attitudes may be representative of the attitudes of all physicians who work in smaller communities in Alabama. If the sampled attitudes are representative of all of the attitudes of "rural" physicians, then of the 198 "rural" physicians in Alabama about 140 have attitudes favorable to the concept of the PA.

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1. J. R. Lave, L. D. Lave and T. E. Morton, "The Physician's Assistant: Exploration of the Concept." *Hospitals,* Vol. 45, June 1, 1971, p. 42.

2. M. C. Todd and D. F. Foy, "Current Status of the Physician's Assistant and Related Issues," *Journal of the American Medical Association,* Vol. 220, June 26, 1972, p. 1714.

3. V. W. Sidel, "Feldshers and 'Feldsherism,' The Role and Training of the Feldsher in the USSR." *The New England Journal of Medicine,* Vol. 278, April 25, 1968, p. 935.

4. J. Kadish and J. W. Long, "The Training of a Physician's Assistant: Status and Issues," *Journal of the American Medical Association,* Vol. 212, May 11, 1970, p. 1047.

5. J. R. Lave, L. D. Lave, and T. E. Morton, "The Physician's Assistant: Exploration of the Concept," *Hospitals,* Vol. 45, June 1, 1971, p. 43.

6. For a discussion of the attitude measurement methodology, see: *A Study of Physicians' and Hospital Administrators' Attitudes Toward the Concept of the Physician's Assistant in Selected Rural Counties of Alabama,* by Albert M. Harris, Jr., unpublished thesis, University of Alabama in Birmingham, 1973.

7. Important points for the reader to keep in mind are these: 1. A score below 60 on the 20-item attitude questionnaire indicated a favorable attitude; a score of 60 indicated neutrality toward physician's assistants (neither favorable nor unfavorable attitude); and a score higher than 60 indicated an unfavorable attitude. 2. The second part of the questionnaire was designed to gain information concerning the frame of reference within which the attitudes had been formed. 3. The group of professionals questioned was chosen because of their geographic location and did not constitute a random sample.

8. J. R. Stockton and C. T. Clark, *Introduction to Business and Economic Statistics.* 4th Ed. Dallas: South-Western Publishing Company, 1971.

9. C. E. Lewis, "Acceptance of the Physician's Assistants," *Hospitals,* Vol. 45, June 1, 1971, p. 63.

10. M. C. Todd and D. F. Foy, "Current Status of the Physician's Assistant and Related Issue," *Journal of the American Medical Association,* Vol. 220, June 26, 1972, p. 1718.

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(Continued from Page 246)

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Smythies, John R., b 22, mc Univ. of Cambridge 55, Limited License 71, UAB Medical Center, University Station, Birmingham, Alabama 35294. P.

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Williams, Richard Larry, b 44, mc Tenn. 68, recip. Tenn. 74, P. O. Box 798, Florence, Alabama 35630. I.

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McLeod, Andin Capps, Jr., b 39, mc Tulane 65, recip. La. 73, 950 Dauphin St., Mobile, Alabama 36604. Or.

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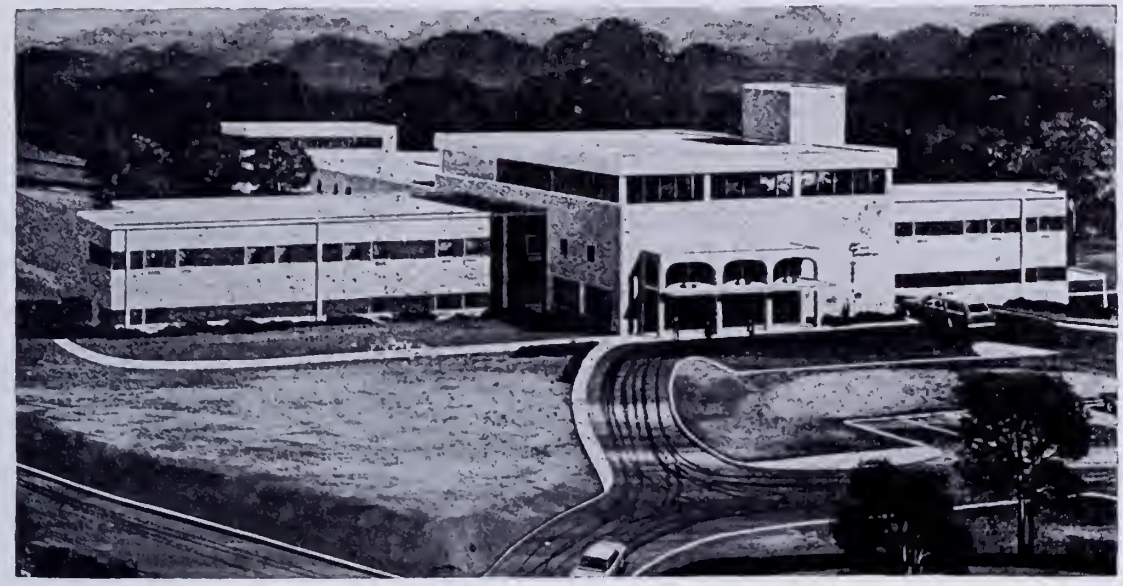
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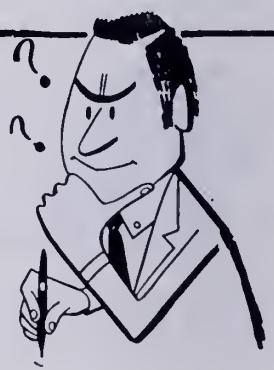
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For further information on this subject, the following references are provided:

1. Henry BW, *et al: Dis Nerv Syst 30*:675-679, Oct 1969.
2. Hollister LE, *et al: Arch Gen Psychiatry 24*:273-278, Mar 1971.
3. Claghorn J: *Psychosomatics 11*:438-441, Sept-Oct 1970.



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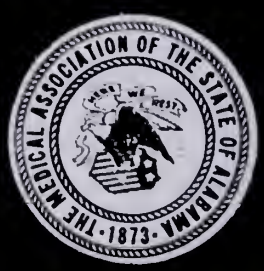
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PRESIDENT'S PAGE

J. GARBER GALBRAITH, M.D., PRESIDENT



A Physician Recruitment Conference sponsored by MASA was held in February, 1974. All who attended considered this most helpful, especially the representatives of those communities seeking new physicians. Because of our continuing deep interest in this subject, another conference is being planned for February, 1975. Such discussion is indeed timely, and in view of increasing numbers of new medical graduates, it is more likely to be fruitful than ever before. True, it will take a few years for the full impact of the accelerated production of physicians to be felt, but it is none too soon to start trying to influence these physicians to locate in needy areas. A clear index of the rising tide of new physicians is indicated by the numbers of graduates of The University of Alabama School of Medicine, increasing from 75 in 1970, 78 in 1971, 87 in 1972, 94 in 1973, to 237 in 1974. The figures for 1974 include two classes, one in January and one in December.

Programs for graduate training in family practice and primary care are now operational in Huntsville and Tuscaloosa, but it will be several years before their output will have any significant impact on physician need in Alabama. One encouraging prospect is that many of the graduates of these programs will very likely want to remain in Alabama. Thus, it is important to define the opportunities here.

The problem of distribution of physicians has never been completely solved under any system of health care. A system is more likely to be effective when based on incentive motivation rather than conscription or indentured servitude. Proposed federal health legislation will undoubtedly have some impact in this area, although its extent is not clear at this time. Proper planning is essential; in this day of rapid transportation, a resident physician is not needed in every crossroads hamlet. As I see it, the most dire need at present is to provide help for those overworked physicians now serving rural areas. Such recruitment should provide more adequate health care in these areas, as well as permitting the physicians to have reasonable time off for recreation and continuing education. Even in larger towns, some physicians have found it necessary to stop accepting new patients so that they might render adequate service for those already under his care. This is a severe deterrent to development of new industry in an area with influx of new families. The Comprehensive Health Planning Agency has a large and continuing responsibility to define the problem and to keep its assessment up to date.

By working together with civic officials and public planners, MASA can do a great deal to resolve the problem of distribution of physicians in this state now that numbers of available physicians are increasing steadily.

One of the problems relating to medical manpower is licensure. Most American graduates qualify in Alabama by reciprocity with The National Board of Medical Examiners. The alternative route is the FLEX examination, which is now the state board examination in 48 of our 50 states. A stumbling block, especially to foreign medical graduates, is the Alabama Basic Science certificate requirement. While this statute has served a useful purpose, it should not become an obstacle to otherwise qualified and competent physicians. It might be wise to re-evaluate this statute in view of our changing times to determine whether modifications are needed in order to continue to protect the public, while not obstructing qualified physicians from obtaining licensure in Alabama.

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Starting November 20th and continuing for 26 weeks each Thursday night at 8:00 P. M., the program "Feeling Good" will be shown on all Alabama Educational TV Stations. These hour-long programs are a major experiment in the use of television to convey a broad range of health information to a mass audience. "Feeling Good" will make people laugh and learn about the state of their health and how to recognize it, as well as maintain and improve it. More than 300 doctors and health experts have helped in selecting the subject matter which will help to influence the lifestyles of millions of Americans.

Regular guest, Bill Cosby, plays an unborn child in an original comic monologue about how a mother can best safeguard the health of she and her baby. Avoiding a coronary is one of the messages from an animated heart to its owner. Pearl Bailey offers an easy do-it-yourself test for people who are overweight, which can be taken in the living room. A short play about alcoholism shows that the disease is often perpetuated by the alcoholic's family. Howard Cosell stresses the need for shots in a fall immunization program against children's diseases. Breast self-examination is demonstrated and some of the other topics include: hypertension, nutrition, dental care, mental health, child care and access to health care delivery.

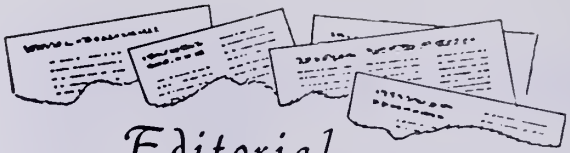
In the related field of Health Education, there are two bills (HR13084, HR13085) now before Congressional committee in Washington, which are labeled the "Comprehensive School Health Education Acts."

They provide funding for teacher training grants in the field of Health Education. They also provide grants for state and local Health Education pilot and demonstration projects in our schools. There are also comprehensive Health Education programs grants to state agencies and assistance to local programs. Our Auxiliary will keep its members informed as to when the final draft comes out of committee, so that they can urge their representative to support it.

In Alabama, we already have an Alabama Health Education Curriculum Guide available at the State Department of Education in Montgomery. This was prepared by experts in their respective fields and is divided into two sections, one for Kindergarten through the sixth grade and the other for the seventh through the twelfth grades. Subjects covered by this curriculum are: consumer health, mental health, drugs, environmental health, family health, nutrition, emotional health, personal health, prevention and control of disease, safety and accident prevention and tobacco and alcohol.

If we could provide proper education in these fields for our children, we would be a happier and healthier state. The Auxiliary looks forward to Health Education being included in the curriculum of all of our counties and we are going to work toward that goal.

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Editorial COMMENT

Guest Editorial

A Reflection of Yesterday—A Commitment For Tomorrow

Leroy L. Holt, M.D.
Bessemer, Alabama

It was flattering to be asked to write a guest editorial as to how this physician remembers the good old days and what he considers to be the challenges of tomorrow.

Recently, I overheard someone make the remark that he yearned for a return to the good old days. It goes without saying that a great deal has happened in the field of medicine during the past 50 years. The good old days are remembered with much fondness, but looking at them with honest perspective, I would not want to return.

I must be living in the prime era of all creation, escaping the hardships of no plumbing, no refrigeration, no indoor climate control, poor transportation, poor communication and the lack of energy in the overcrowding which faces us in the future.

In my medical career, I came along early enough to see primitive medicine, so that now I can enjoy modern medicine. I can remember lining up 75 cases of advanced tertiary syphillis to be seen by visiting dignitaries. I have seen an aortic aneurism erode the chest wall and erupt to the outside, splattering the room and its contents with blood. I recall when an entire floor of one particular hospital had to be devoted to cases of acute poliomyelitis; the typhoid epidemics; the numerous cases of malaria, some induced as a method of fever therapy; blood drawn into open flasks for transfusions; a pinch of Arm and Hammer Baking Soda from the shelves over the nurse's desk added to intravenous fluids with sulfanilamide in it; and intravenous fluids compounded in the hospital pharmacy. Things are better now.

When I first began practice, it was as easy to make a house call as it was to see a patient in the emergency room. Hardly a day passed when I did not make several house calls, as well as emergency room calls. How aggravating it was when the coroner would not order an autopsy on a questionable DOA! I do not even know who our coroner is now. The emergency room physician stands between him and me. Life is easier now.

When I came to this community, the doctors did not appear to be the richest men in town. This is no longer the case. Life is more profitable now.

Why are we not happier now? Our image is tarnished. Our image is what people see when they look as us collectively. Two of the Old Testament prophets, Amos and Hosea, have reminded us that each individual is responsible for the sins of the society to which he belongs. Perhaps if we correct the evils within medicine, then our government would not feel compelled to change our system of health care and delivery, in an effort to rid itself of these evils.

Most of us are honest and dedicated servants of the public. It does not take much on the part of a few individuals to tarnish our efforts. An entire theatrical production can be destroyed simply by the poor performance of one bad actor. On three separate occasions last week, patients who had been referred by me were told by three different doctors' offices that they were required to pay cash for the first visit in amounts varying from

(Continued on Page 290)

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(Continued from Page 288)

$76 to $100. One office accepted no personal checks. The reaction of my patients was that these doctors were more interested in money than people. Two of these patients were good credit risks, and one simply could not afford the consultation, even though he needed specialized help.

The enjoyment of the rewards from hard work after they are earned is most satisfying to any individual. However, to watch a doctor kill himself with overwork, some of it unnecessary, in order to meet his payments for his little-used luxuries, is both pathetic and obnoxious to any onlooker from the community.

I am sure that none of us want to return to the good old days; to take that step backward to the days of ignorance and ineptness. We hear doctors and patients alike wishing for a return to those days when people loved and respected the doctors. The truth of their wish might be as simple as the doctors learning to love and respect the people, more than they do knowledge, skill, money, luxuries or fame.

What can we do about it? We can follow the example of concerned colleagues by making referrals to competent doctors who are concerned for the welfare of the patient. We can make a commitment for the future by keeping "our own house in order." Our patients demand a commitment of personal concern and medical skill to meet their needs. Our oath reminds us of that commitment.

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The following films are made available from Eaton Laboratories. They may be obtained by contacting your local Eaton representative or by writing to: Eaton Medical Film Library, Eaton Laboratories Division, Morton-Norwich Products, Inc., Norwich, New York 13815.

Surgical Management of Eyelid Burns (22-766)

John A. Boswick, Jr., M. D.

This film demonstrates the use of large, free and full thickness skin grafts in the correction of eyelid contractures resulting from thermal injuries.

The principles of contracture release and correction with skin grafts are the main points stressed by this procedure. A few details of technique are discussed in the narration. The essentials of post-operative management are also discussed and the long term results are shown with close-up pictures that reveal the increase in function obtained by the procedures.
16 mm., color, sound, 10 minutes (1967) IV

Surgical Management of an Axillary Burn Web (22-768)

John A. Boswick, Jr., M. D.

This film portrays an axilla webbing resulting from a thermal injury on the trunk and the arm of a five-year-old child. The webbing occurs in an area that sustains little or no injury or tissue damage. Therefore, the correction is carried out through normal tissue and can be performed earlier than most contractures. It is performed at an early date in this patient in order that she may have full use of her extremity and not develop abnormal habits. It is fully appreciated that any delay in correcting this contracture would probably result in the loss of shoulder function.

16 mm., color, sound, 12 minutes. (1967) IV

The Use of Split Thickness Skin Grafts in Contractures of the Elbow (22-767)

John A. Boswick, Jr., M. D.

This film demonstrates the development of a very severe soft tissue, muscular and capsular contracture at the elbow in a burned patient. To release this contracture, it was necessary to cut the biopsy tendon. The defect created by the release of this contracture had exposed muscle tendon, nerves and vessels present. These structures were covered and the defect closed by a thick split thickness skin graft.

The functional and cosmetic results obtained by this procedure are both excellent, as demonstrated by a nine-month post-operative film.
16 mm., color, sound, 10 minutes. (1967) IV

The Management of Severe Burns in Children (22-741)

E. Thomas Boles, Jr., M. D.

The burn unit at Children's Hospital is used to demonstrate the author's experience in the successful management of burned children. The photographic record includes the treatment upon arrival of one patient in the emergency room immediately following a burn accident. Treatment is followed through the successful completion of grafting procedures. Immediate care of the burn wound, procedures during the shock phase, fluid replacement, prevention of infection, proper nutrition, prevention of anemia, secondary care of the burn wound, grafting and prevention of infection are demonstrated.
16 mm., color, sound, 25 minutes (1965)

(Continued on Page 304)

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THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA

Published Under the Auspices of the Board of Censors

Volume 44 December, 1974 Number 6

Breast Cancer Management

William A. Maddox, M.D., Birmingham
Henry L. Laws, M.D., Birmingham
John T. Carpenter, M.D., Birmingham

Part I

Cancer of the breast is the most common cancer afflicting the female. The anticipated number of women in Alabama who will have newly diagnosed breast cancer in one year is 1,144 (Appendix I). The controversy regarding its proper treatment is an old and continuing one, yet less accord prevails today than 30 years ago.[2,3,4,12,13,16,17] Controversy stems from failure to achieve acceptable cure rates with present methods of treatment. Significant factors include: introduction of better radiation-therapy equipment and techniques, new strides in the use of anti-cancer drugs, and new promises in immunology. Even more significant is the paucity of firm data derived from properly conducted therapeutic trials. As a consequence many major decisions are based on unproven opinions gleaned from comparing retrospective reviews in different institutions with dissimilar material.

An important opportunity has become available to the physicians of Alabama. A breast cancer study grant, Prototype Network Demonstration Project in Breast Cancer, has been made to the University of Alabama in Birmingham through the Regional Cancer Center. This grant provides adequate financing for a program on breast cancer treatment whereby a prospective study can be conducted and the results properly evaluated. As now envisioned, this study will deal with patients who have primary operable (potentially curable) breast cancer. It is, we feel, possible for the physicians of this state to make a significant contribution toward solving the enigma of breast cancer management.

To assess present practices in the state, a questionnaire was mailed to sixty-four (64) practicing surgeons in Jan., 1974. Selection of these surgeons was made to provide representation for all geographic areas and major hospitals of the state. Fifty-two (52) of the questionnaires were completed and returned. Table I reflects the responses to the question 'What is the usual therapy you employ for primary operable carcinoma of the breast?"

TABLE I. ALABAMA SURGEONS

Simple Mastectomy or Modified Radical Mastectomy	2
Modified Radical Mastectomy	17
Radical Mastectomy	24
Radical Mastectomy or Modified Mastectomy	9

From this sampling, about 90 per cent of these surgeons were recommending postoperative radiotherapy for those patients found to have histologically positive axillary lymph node metastases. Significant in the data accumulated from this sampling was the general consensus that the best treatment for breast cancer is uncertain and prospective randomized studies concerning many controversial issues are needed. This questionnaire

indicated enough interest to prompt us to ask for time on the program at the Annual Meeting of the Alabama Chapter of The American College of Surgeons held in Point Clear, Alabama, May 25th, 1974. At that meeting the rationale and justification for a study involving patients with breast carcinoma was presented. There was general agreement that a study could be implemented in the state. The following is a list of physicians who were asked to serve as an advisory committee.

Ben Ralph Byrd, M. D., Dothan, Alabama.

Jasper Dixon Bush, M. D., Gadsden, Alabama.

John T. Carpenter, M. D., Birmingham, Alabama.

Arthur I. Chenoweth, M. D., Birmingham, Alabama.

Joe William Denson, M. D., Gadsden, Alabama.

Lawrence Earl Fetterman, M. D., Mobile, Alabama.

Edgar Gilmore Givhan, II, M. D., Montgomery, Alabama.

Henry Grady Herrod, M. D., Tuscaloosa, Alabama.

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The first meeting of the Advisory Committee was held on September 4, 1974. At that time the rationale and objectives were again reviewed; and the members made several helpful suggestions and recommendations. It was agreed that the project should be presented to the physicians in the State of Alabama.

Objectives

In attempting to accumulate good clinical data to answer questions relative to management of patients, it is necessary that a study be designed in a precise and uncomplicated manner. If too many problem areas are studied in the same protocol, the data becomes fragmented and statistically less valid. Individual physicians and hospitals may wish to evaluate various other diagnostic or therapeutic problems associated with breast cancer management, since good follow up and evaluation will be available through this study. However, any additional studies must not interfere with the basic objectives. We are of the opinion that two of the most important questions to be answered in breast cancer management are: 1) The Extent of Surgery 2) Evaluation of Chemotherapy for the patient with histologically positive axillary lymph node involvement. It is the purpose of this study to improve our knowledge in these areas.

Extent of Surgery

There are a number of factors that have been demonstrated to influence the survival of patients with carcinoma of the breast. Among these are size of primary tumor, presence or absence of axillary lymph node involvement, level of axillary node involvement, and location within the breast. In addition the histologic type has been shown to alter prognosis. For instance, patients with intraductal (non-infiltrating duct), in situ lobular, papillary, comedo, colloid carcinomas in general have a better survival rate. Moreover, the survival of patients with Padget's disease of the nipple, without a clinically evident underlying palpable mass, approaches 100 per cent.[33] As data of certain of these have accumulated, it is apparent that Radical Mastectomy would be over treatment for cer-

tain breast cancer patients; however, multicentricity within the breast is so frequent that less than total mastectomy for even the very early cancer is generally not recommended. Except for these instances of very early breast cancer, we must be concerned with treatment of both the breast and the lymphatic drainage areas.

A number of investigators have attempted to treat carcinoma of the breast with less than radical mastectomy basing the treatment on "clinically negative" axillary findings. It is apparent that data to prove a proper treatment for carcinoma of the breast is difficult to assess due to comparisons of multiple available operations, of patients with different stages of disease, and various methods of adjuvant therapy; lacking are large series of randomized prospective studies consistently measuring results of specific and limited treatment programs with adequate follow up information. However, data are available that show that partial mastectomy is *not* the proper operation for *cure* of carcinoma of the breast.

A proponent of partial mastectomy, Crile[11] reported on a series of fifty-three (53) patients who received a partial mastectomy compared retrospectively with fifty-three (53) matched patients who received a total mastectomy. Salient points in his publication were:

1) that partial mastectomy was used for tumors up to 3.0 cm in size (average 2.0 cm):
   a) if tumor is not adjacent to nipple or,
   b) if histologically not multicentric
2) that in the partial mastectomy operation about ¼ to ½ of the breast (2-3 cm of breast tissue around the tumor) with overlying skin and underlying fascia was removed,
3) that local recurrence was greater than in series reporting results with radical mastectomy, but adds that local recurrence has little effect on survival because:
   a) local recurrence is treated by radical mastectomy or axillary dissection.
   b) skin recurrence is usually a manifestation of systemic disease so cure is unlikely.
4) that 60 per cent of each group (partial mastectomy and matched patients) in the series were Stage I, i.e. dissected axilla without positive nodes or no apparent axillary metastases during period of follow up.

His results showed a 5 years survival for partial mastectomy 41/53 or 77 per cent. Emphasis should be placed on the fact that the recommended operation was based on *clinically* neg. axilla and tumor less 3.0 cm in size.

In contrast Atkins, et al,[5] in a prospective randomized study comparing wide excision of tumor (tylectomy, partial mastectomy) with radical mastectomy (both groups received post-op irradiation) in 370 patients over 50 years of age and followed for 10 years, showed that:

1) survival for 10 years was greater for the radical mastectomy group (188 patients).
2) local recurrence rate was higher with partial mastectomy group (182 patients).
3) distant metastases was more frequent with partial mastectomy,
4) he also emphasized, as other authors have, that the error in clinical assessment of axilla for lymph node metastases is 25 per cent.

Farrow et al.[15] studied the results of biopsy plus radiotherapy in 77 patients, who refused radical mastectomy, and he retrospectively matched these with 77 patients who had received radical mastectomy and another 77 patients who had received radical mastectomy plus radiotherapy. This comparison demonstrated that patients subjected to radical mastectomy with or without postoperative radiotherapy had a larger clinically free interval, a lower incidence of local recurrence,

TABLE II

Survival Rates for 227 Women with Breast Cancer Treated by Radical Mastectomy

	No. of Patients	Level of Axillary Metastases	8 Year Survival		
Group I	62	None			82 per cent (51/62)
Group II	63	Level I			71 per cent (45/63)
			94 per cent	(17/18)	micrometastases
			62 per cent	(28/45)	macrometastases
Group III	102	Level III			65 per cent (66/102)
			59 per cent	(13/22)	micrometastases
			29 per cent	(23/80)	macrometastases

and a higher survival rate than the patients treated by biopsy and primary radiotherapy.

Schottenfeld et al.[39] evaluated the effectiveness of partial mastectomy in removing all cancer by taking 203 radical mastectomy specimens to the pathology laboratory and performing a simulated partial mastectomy. The residual breast and axillary tissues were dissected for residual carcinoma. Residual carcinoma was demonstrated in the breast or axillary nodes in 44 per cent of the specimens when the primary cancer was less than 1.0 cm in diameter and in 66 per cent of specimens when the primary cancer was 1-2 cm in diameter.

Huvos et al.[28] evaluated the effect of axillary metastases on survival and further studied the significance of micrometastases (foci less than 2 mm in size) with macrometastases (foci greater than 2 mm in size). This study was compiled from 227 patients with primary operable infiltrating carcinoma of the breast treated by radical mastectomy in the year 1960 at the Memorial and James Ewing Hospitals, New York City. An 8 year follow up period was available for each patient. This study, as well as others has demonstrated that division of axilla into three levels from base to apex provides precise prognostic data. This study further refined the data indicating that small metastatic foci within the axillary lymph nodes diminished survival rate much less than larger metastatic foci. They divided the patient data into three (3) groups (Table II). Group I with no axillary metastases fared best with a survival of 82 per cent (51/62). Group II patients with metastases to lymph nodes in only the lowest axilla (Level I) had a survival of 71 per cent (45/63); while Group III with metastases to the apex of the axilla (Level III) had a survival rate of 65 per cent (66/102). Of the 63 patients with lymph node metastases at Level I, 18 had micrometastases with a survival rate of 94 per cent, and 45 had macrometastases with a survival rate of 62 per cent. Of the 102 patients with metastases to Level III, 22 had micrometastases with survival rate of 59 per cent (13/22), 80 had macrometastases with survival rate of 29 per cent (23/80).

The data of Schottenfeld[39] indicates the frequency of clinically unsuspected residual tumor in the breast and axilla. The data of Huvos[28] indicates that poorer survival rates can be expected if clinically unsuspected metastatic cancer in axillary lymph nodes is left untreated until it is clinically evident. Thus we do have good data to indicate that the entire breast and axillary lymph nodes should be included in any treatment program for most patients with primary, operable carcinoma of the breast.

Modified Radical Mastectomy vs. Radical Mastectomy

Radical mastectomy entails removal of the entire breast, both pectoral muscles and the axillary contents. Modified radical mastectomy ablates the breast and axillary contents, but preserves the pectoral muscles. The former operation, the standard procedure since Halstead's report in 1894, had been generally accepted until recent years. However, because of reasonably comparable cure rates in uncontrolled studies with the more

conservative operation and a higher incidence of lymphedema of the arm with the radical mastectomy there has been a shift toward modified radical mastectomy. In the ongoing study by the National Surgical Adjuvant Breast Project utilizing L-phenylalanine Mustard (L-PAM) for node positive cases about ½ of the cases submitted from large medical centers have had a modified radical mastectomy.[29] The limited sampling of Alabama surgeons indicated about ½ used the modified operation for some patients.

The shift away from radical mastectomy toward modified radical mastectomy is not justified by review of the published data. Auchincloss[6] recommended consideration of the modified procedure in 1963 on study of pathologic specimens and Madden[30] has been a strong advocate of the procedure. The latter has now done 200 cases, 100 of which have been followed for 3-17 years. Five year survival in 89 patients of Madden's compares favorably with three series of radical mastectomies (Table III).[14,23,30,18,19] Ten year survival in Handley and Thackray's series of the Patey's conservative radical mastectomy ("Conservative Radical Mastectomy") in 143 patients approximate those of radical mastectomy by Haagensen and Cooley and by Butcher.[24,7,23] Yet there is no question that radical mastectomy allows more complete removal of the axillary lymph nodes.[27]

The mortality from the modified radical and the radical operations are the same, 1 per cent or less. Range of motion after either operation is usually good. Strength for some activities should be better after modified radical mastectomy. Lymphedema of the arm appears to be less following the modified procedure.[14] Haagensen reports a 5 per cent incidence of early lymphedema following his radical operation.[22]

In summary, a shift away from radical mastectomy toward modified radical mastectomy to avoid arm lymphedema and to afford somewhat better arm strength is transpiring, but is not justified by a randomized, controlled series or even by large retrospective studies.

TABLE III. 5-YR. SURVIVAL PER CENT

	Operation	Node Status Clinical	
		A	B
DONEGAN	Radical	74.8	57.6
HAAGENSEN	Radical	84.0	56.0
		Pathological	
		Negative	Positive
FISHER	Radical	79.0	45.0
MADDEN	Modified Radical	84.0	37.7

The Data for and Against Post-Operative Irradiation Therapy in the Management of Primary Operable Carcinoma of the Breast

In recent years post-operative irradiation therapy in the management of primary operable carcinoma of the breast with histologic evidence of lymph node involvement, has been defended on the basis that survival might be improved. This was based, for the most part, on the known: (1) instance of internal mammary node involvement in specimens after radical mastectomy, plus chest-wall resection, with long-term survival of some of these patients. (2) fact that intensive megavoltage irradiation therapy to this area had not been adequately tested.

Today our knowledge is more complete. About 90 per cent of surgeons, and probably 100 per cent of radiation therapists in Alabama recommend post-operative irradiation therapy for patients with metastases to axillary nodes. There is evidence to indicate that local recurrences can be reduced, but also evidence to indicate that if and when local recurrence is manifest, it can be adequately managed without detriment to the patient. There is suggestive evidence that distant metastases are more common in patients who have received post-operative irradiation therapy. Publications by Adair, 1943[1]; Marshall and Hare, 1947[32]; Harrington, 1952[25]; Guttmann, 1966[21]; Watson, 1966[41], indicated that post-operative irradiation therapy in the management of primary operable breast cancer was of benefit. Most of these hypothecations were based on heterogeneous groups of patients with comparison of sur-

vival rates at one institution to that of another. Later—Hickey, 1956[26]; Butcher, 1964[8]; Robbins, 1966[38], published data indicating that there was no substantial difference in survival rates whether post-operative irradiation therapy was used or not. One of the most quoted studies relative to the indications for and against post-operative irradiation therapy, and the first good prospective randomized study, was conducted by Patterson and Russell[36] at the Christie Hospital, Manchester, England, between 1949 and 1955. Randomization of cases, both histologically node positive and node negative, was done using orthovoltage irradiation therapy by two techniques. One, the so-called quadrant technique, aimed at one block of tissue in the operative area and axilla with the treatment time of three weeks in doses aimed at 3,500 to 4,000 rads. The other technique was the so-called peripheral technique, that was designed to extend the scope of effectiveness of the operation, rather than irradiate the operation area itself. This therapy was directed for the most part at the internal mammary node area, as well as the supraclavicular space and upper axilla and doses of about 4,250 rads in three weeks were given. This study was designed primarily to test the effectiveness of local irradiation therapy after radical mastectomy, when given immediately post-operatively or given only when and if local recurrence became manifest.

Substantially, the results were essentially the same, whether radiation therapy was given immediately post-operatively or delayed until recurrence was evident. This was true with either of the techniques used. There was a lowered incidence of local recurrence in those cases irradiated immediately post-operatively, but no difference in survival rate, and it appeared again that there was suggestive evidence that distant metastases were more common in the group of patients receiving post-operative irradiation therapy.

The other interesting finding in this study was that only 1/3 of the patients who did not receive irradiation therapy post-operatively ever required it. Thus, in the watched group, 2/3 of the women were spared local radiation therapy and it was found they never needed it. As indicated before, this was a good prospective randomized trial which established with little doubt the failure of post-operative orthovoltage radiotherapy in these dose ranges to increase survival.

By this time, more sophisticated radiation therapy equipment was becoming generally available and it was felt that another prospective randomized trial of the effectiveness of these new radiation therapy techniques should be conducted for the histologically positive node patients after radical mastectomy. A study was instituted, known as the National Surgical Adjuvant Breast Project in October 1961, and was reviewed in the Annals of Surgery, October 1970 by Fisher, et al.[17] This study included cases from 25 institutions. 1,103 cases were randomized, 470 receiving post-operative irradiation therapy, 633 were considered controls, 316 of these received Thiotepa .4 mg per kilo of body weight intravenously on the day of operation and .2 mg per kilo of body weight the next two days intravenously. 317 received placebo only. Irradiation therapy was designed to administer a therapeutic dose of irradiation to those regions adjacent to the surgically extirpated area which might harbor residual tumor. These regions included the internal mammary chain of nodes, the apex of the axilla, and the supraclavicular region. The chestwall and axilla, as a whole, were not irradiated. For the most part, this therapy was delivered with what will be considered megavoltage equipment. Early in the study, some institutions did not have megavoltage equipment, but switched to this equipment when it became available fairly early in the study. The dosage administered was a minimum of 3,500 rads in no more than three weeks, and 4,500 rads in no more than five weeks. Treatment failures due to local regional recurrence were lower at each time period for irradiated patients compared to the Thiotepa or placebo treated patients. These differences were in the order of 7.8 per cent for irradiated patients, 5.9 per cent for Thiotepa treated patients and 15.4 per cent for placebo treated patients at five years period. There was, however, a higher

proportion of patients with distant metastases (at first reported evidence of disease) in the irradiation therapy group than the other groups.

In summation this data indicated that the per cent of patients with a 5 year survival free of disease in the irradiation therapy group was 50.6 per cent; and was 50.2 per cent in the control group. Survival at 5 years in the irradiation therapy group—56 per cent; in the control group—62 per cent. Thus in this randomized study, using relatively heavy doses of post-operative irradiation, there was no indication that the patients receiving post-operative irradiation therapy had been benefited. In view of this information, it is clear why an examination of other treatment modalities for the management of women with histologically positive lymph nodes, such as adjuvant chemotherapy, should be made.

Chemotherapy in Breast Cancer

Chemotherapy has generally been used in palliative treatment for those patients who already have disseminated disease which is no longer controlled by hormonal manipulation. At this stage of disease, approximately 2/3 of patients will have their disease arrested by combination chemotherapy and about 1/2 of these responders will attain an objective temporary remission. When used in disseminated disease, the treatment cures no one but may arrest the disease for 6-12 months. Comparable results have been reported with a five-drug combination (Cooper)[19] and with a three-drug combination (Greenspan).[20]

There is now data available which suggest that chemotherapy may be of benefit in patients with earlier stages of disease. We now know, from studies of tumor cell kinetics, that small tumor masses generally have a higher percentage of dividing cells than do larger masses.[9] If large masses are reduced in size, such as by operation or radiation, the percentage of dividing cells increases. Since most cytotoxic drugs have their greatest effect on rapidly dividing cells, the observation is a relevant one here. All of this would lead us to think that the period just after a reduction in tumor size is the ideal time to use cytotoxic drugs.

With the cooperation of physicians in thirty seven institutions, the National Surgical Adjuvant Breast Project (NSABP), Protocol No. 1 tested the effect of post-operative thio-TEPA (split doses over 3 days) in patients after radical mastectomy. Premenopausal women with four or more positive nodes who received only surgical treatment had a 50 per cent recurrence of disease within 13 months and 80 per cent recurrence within 5 years (76 per cent dead), an extremely high risk group. When some of this group of women were given post-operative thio-TEPA (split doses over 3 days), there was a 2.6 year delay to 50 per cent recurrence after mastectomy and a slightly greater than 3 year increase in the median survival time after mastectomy. The increase in the survival and delay to recurrence were significant. Remember that the results were obtained using a drug which is not the best single agent and which was not given on an optimal schedule.

Additionally Dr. Bernard Fisher recently announced preliminary results of the current Breast Adjuvant Study.[16,37] In this project, patients with positive axillary nodes received either post-operative intermittent melphalan (L-PAM) or a placebo. At the end of two years the data indicated that the recurrence rate was significantly reduced for women receiving the L-PAM. Particularly, this was true for women who were premenopausal where only 1 of 30 patients receiving L-PAM recurred, whereas 11 of 37 recurred after surgery receiving placebo only. For post menopausal patients the failure rates were also reduced in the L-PAM treated group, but not as markedly. Whether these women may be cured or whether their survival will be increased is not yet known; long-term effects of such therapy are also unknown. For premenopausal women, the Breast Adjuvant Group has stopped randomization on their study since the advantage of adjuvant therapy seems clearly established by their data.

In advanced disease we now know that combination chemotherapy produces more objective responses and more remissions than any single agent in use. A recent trial of 5-FU versus a five-drug combination in patients with metastatic breast cancer confirmed this advantage, showing both an increase in the percentage of responders and an increase in the survival of responders.[9] Since we know that single agents, thio-TEPA and melphalan, increase time to relapse and survival in high-risk patients after mastectomy, what is needed is a comparison of a more effective combination of drugs used in optimal fashion vs. melphalan in that same group of high-risk patients. A suitable combination would be *Cytoxan, 5-FU, Methotrexate,* three drugs which are thought to be most active. These drugs are all easily available on the market and are familiar to most physicians involved in the treatment of advanced breast cancer. This randomized comparison to compare effectiveness and toxicity would help to determine the optimal adjuvant therapy for high-risk patients.

Adjuvant chemotherapy has much in the way of theoretical and animal data to support its use in the immediate post-operative period to hopefully increase cure rate or prolong palliation. Since 2/3 of patients with positive nodes will ultimately manifest recurrent disease and immediate "prophylactic" post-operative irradiation has no improvement of the cure rate, a carefully controlled trial of multiple chemotherapeutic agents is urgently needed.

Summary

1. An operation less than a modified radical mastectomy should not be done for patients with primary operable breast carcinoma; however, the best operation for these patients is not yet known.
2. Routine post-operative irradiation therapy for patients with positive axillary nodes has not increased survival.
3. Adjuvant chemotherapy appears to be of benefit for select patients with histologically positive axillary lymph nodes.
4. A grant to study the management of breast cancer in the State of Alabama has been made to the University of Alabama in Birmingham through the Cancer Center.
5. This support affords a unique opportunity to conduct a randomized trial comparing modified radical mastectomy with radical mastectomy and to further evaluate post-operative chemotherapeutic drug regimens in node positive patients. The potential benefits of such a study warrant its enactment and should help clarify parts of the therapeutic dilemma of this common cancer. A subsequent article in the journal will outline the specific proposed protocols which have been developed by the advisory committee. All Alabama surgeons will be given an opportunity to participate in the study.

APPENDIX I

Expected Annual Number Newly Diagnosed Cases Female Breast Cancer Counties of Alabama

County	White Females	Black Females	Total
Autauga	6	2	8
Baldwin	17	3	20
Barbour	4	3	7
Bibb	3	1	4
Blount	9	0	9
Bullock	1	2	3
Butler	5	3	8
Calhoun	30	5	35
Chambers	8	4	12
Cherokee	5	0	5
Chilton	8	1	9
Choctaw	3	2	5
Clarke	5	3	8
Clay	4	0	4
Cleburne	4	0	4
Coffee	10	2	12
Colbert	14	2	16
Conecuh	3	2	5
Coosa	2	1	3
Covington	10	2	12
Crenshaw	3	1	4
Cullman	18	0	18
Dale	14	2	16
Dallas	9	8	17

Dekalb	14	0	14
Elmore	8	3	11
Escambia	8	3	11
Etowah	29	4	33
Fayette	5	1	6
Franklin	8	0	8
Geneva	7	1	8
Greene	1	2	3
Hale	2	3	5
Henry	3	2	5
Houston	15	4	19
Jackson	13	1	14
Jefferson	157	59	216
Lamar	4	1	5
Lauderdale	21	2	23
Lawrence	8	2	10
Lee	15	5	20
Limestone	12	2	14
Lowndes	1	3	4
Macon	2	5	7
Madison	54	8	62
Marengo	4	4	8
Marion	8	0	8
Marshall	19	0	19
Mobile	75	29	104
Monroe	4	3	7
Montgomery	39	17	56
Morgan	24	2	26
Perry	2	3	5
Pickens	4	2	6
Pike	6	2	8
Randolph	5	1	6
Russell	9	6	15
St. Clair	8	1	9
Shelby	11	2	13
Sumter	2	3	5
Talladega	16	6	22
Tallapoosa	9	3	12
Tuscaloosa	30	8	38
Walker	18	1	19
Washington	4	1	5
Wilcox	2	3	5
Winston	6	0	6
Total	887	257	1,144

The population based sex race crude incidence rates provided by the Third National Cancer Survey 1969-1971 done in the metropolitan area of Birmingham were utilized along with the 1970 census population data to calculate the expected numbers of newly diagnosed cases by county in Alabama.[10] It is anticipated that there would be 1,144 new cases diagnosed each year, and 887 would occur in the white female population and 257 among black females.

For further information call the MIST LINE and ask for the Alabama Breast Cancer Project; or write to William A. Maddox, M.D., Alabama Breast Cancer Project, University of Alabama in Birmingham, P. O. Box 193, University Station, Birmingham, Alabama 35294.

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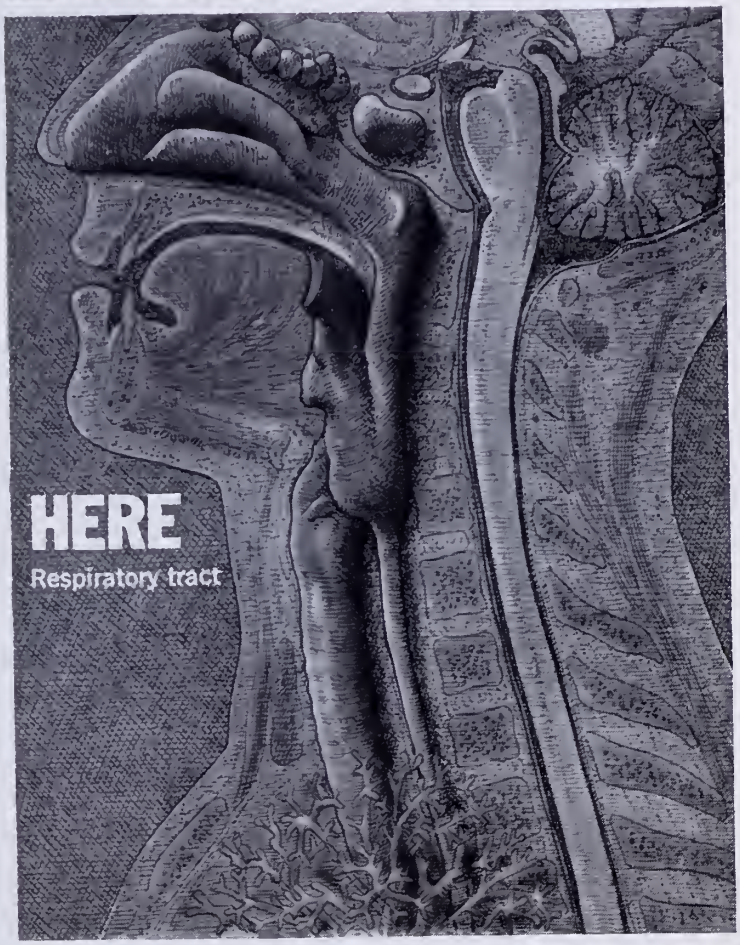
University of Florida Offers Computer Applications Program

The College of Medicine, Division of Postgraduate Education, University of Florida, would like to extend an invitation to Alabama physicians to attend the Current Computer Applications in Medicine program, January 31 and February 1, 1975.

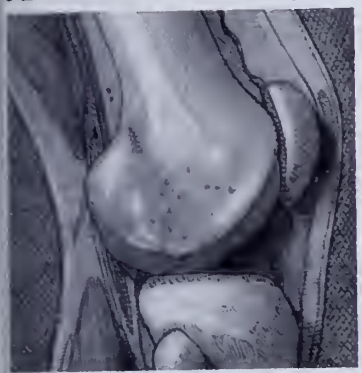
This 1½ day program has been designed to appeal primarily to hospital administrators, health care personnel and physicians in internal medicine and cardiology. Application for 12 credit hours has been made to the American Academy of Family Physicians. 12 hours credit will be applied toward the American Medical Association's Physician Recognition Award Category 1.

The program fee will be $45 per person. Registration will close on January 24, 1975, and will be limited to 100 participants.

WHEN FLU HITS AND HURTS



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Wherever it hurts, Empirin Compound with Codeine usually provides the symptomatic relief needed.

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Headache



In flu and associated respiratory infection, Empirin Compound with Codeine provides an antitussive bonus in addition to relief of pain and bodily discomfort.

℞ **prescribing convenience:** up to 5 refills in 6 months, at your discretion (unless restricted by state law); by telephone order in many states.

Empirin Compound with Codeine **No. 3,** codeine phosphate* 32.4 mg. (gr. ½); **No. 4,** codeine phosphate* 64.8 mg. (gr. 1) *Warning—may be habit-forming. Each tablet also contains: aspirin gr. 3½, phenacetin gr. 2½, caffeine gr. ½.

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EMPIRIN® COMPOUND c̄ CODEINE

#3, codeine phosphate* (32.4 mg.) gr. ½
#4, codeine phosphate* (64.8 mg.) gr. 1

(Continued from Page 291)

Release of Burn Scar Contracture of the Knee (22-798)

John A. Boswick, M. D.

The purpose of this film is to demonstrate the correction of an early post-burn contracture of the popliteal space. This severe contracture occurred within a few weeks after burning and closure of the wound by split thickness grafts. The severity of the contracture necessitated early surgical release. An excellent cosmetic and functional result is obtained by excision of the contracture and coverage of the defect with thick split thickness skin.

16 mm., sound, color, 10 minutes (1969) IV

Staged Reconstruction of a Severely Burned Hand (22-806)

John A. Boswick, Jr., M. D.

This film is designed to show the value of early repeated operations in correcting severe burn deformities in the hands of children.

The first procedure described in this film shows the release of a flexion-adduction contracture of the thumb and flexion contractures of digits. These contractures were corrected by excision of scar and replacement with very thick skin grafts. In a matter of months, a second procedure was required. The second procedure was much less extensive and was performed on a hand that had been supple, due to use.

16 mm., sound, color, 20 minutes (1970) IV

Montgomery, Alabama: Emergency Physicians. Immediate openings available to eventually organize ED group of four full-time physicians. $45,000 per annum for basic 44 hour week. Flexible work schedules plus fringe benefits. Contact Taylor Morrow, Administrator, Montgomery Baptist Hospital, P. O. Box 11010, Montgomery, Alabama 36111 (205) 288-2100.

Lymphography In Female Genital Cancer (22-718)

Hervy E. Averette, M. D., Richard C. Hudson, M. D., Manuel I. Viamonte, M. D., James H. Ferguson, M. D.

The radiographic demonstration of lymph vessels and nodes has become a routine procedure in the over-all management of patients with genital malignancy treated at the University of Miami School of Medicine. Clinical applications of direct lymphography are presented to demonstrate how this procedure is utilized in the study and treatment of patients with carcinoma of the vulva.

Particular attention is paid to the methods in which lymphography serves in evaluating the thoroughness of the lymphadenectomy. Microscopic sections are employed to emphasize the advantages of chromlymphography in detecting abnormalities in pelvic and inguinal lymphatics as well as the extent and thoroughness of the lymphadenectomy operation.

16 mm., color, sound, 25 minutes (1964) IV

Complete Vaginal Repair — A Simplified Approach (22-716)

Stanley F. Rogers, M. D., Jack Moore, M. D., Warren Jacobs, M. D.

This film provides a detailed demonstration of a simple technic for vaginal hysterectomy and pelvic repair, including repair of cystocele, rectocele and uterine prolapse. Operating time is comparatively short, blood loss is minimal, post-operative patient comfort is maximal, and results are good.

16 mm., sound, color, 20 minutes (1956)

Radical Vulvectomy With Posterior Exenteration For Carcinoma of the Vulva (22-769)

Denis Cavanagh, M. D., F. A. C. O. G.

This film shows the technique of radical vulvectomy with bilateral pelvic inguinal lymphadenectomy. As the lesion invaded the rectum a posterior exenteration was carried out on the patient. Pre- and post-operative lymphangiograms are shown and discussed.

16 mm., color, sound, 15 minutes (1967) IV



around the state

Vital Statistics

NEW MEMBERS

Baldwin County

Diegmann, Fred Ferris, b 43, mc Alabama 69, recip. NBME 70, 505 N. Section St., Fairhope, Ala. 36532. ObG.

Jefferson County

Autry, Donald Webster, b 40, mc Ala. 66, sb 67, 1529 N. 25th St., Birmingham, Ala. 35234. Or.

McCollough, Edward Gaylon, b 43, mc Ala. 69, recip. NBME 70, 924 18th St., So. Birmingham, Ala. 35205. Otolaryngology.

Orso, Ronald Wayne, b 45, mc Ala. 72, recip. NBME 73, Lloyd Noland Hospital, Fairfield, Ala. 35064. ObG.

Sweatman, Carl Alden, Jr., b 41, mc South Carolina 67, recip. South Carolina 72, 7901 1st Ave. South, Birmingham, Ala. 35206. S.

Troxell, James Sheehan, b 34, mc Univ. of Mexico 72, recip. California 74, Lloyd Noland Hospital, Fairfield, Ala. 35064. S.

Madison County

Lary, John Howard, Jr., b 43, mc Tulane 70, recip. La. 73, Medical Arts Bldg., Huntsville, Ala. 35801. I.

McMurray, James Gordon, b 40, mc Miss. 67, recip. Miss. 74, 600 St. Clair, Huntsville, Ala. 35801. U.

Parker, John Miller, b 30, Miss. 57, recip. Miss. 71, 600 St. Clair, Huntsville, Ala. 35801. D.

Mobile County

Bodie, Charles William, b 43, mc Ala. 69, sb 70, 4210 Bellevue, Mobile, Ala. 36601.

Henson, Edmond Charles, b 37, mc Miss. 73, recip. Miss. 74, P. O. Box 1764, Mobile, Ala. 36601. Path.

Roberts, Norma Faye Dupont, b 44, mc Ala. 71, sb 72, 3920 Airport Blvd., Mobile, Ala. 36608. Pd.

MEMBERS DECEASED

Cullman County

Barnes, Everett Beck, Jr., Cullman, Alabama, Deceased 10/74

Marshall County

Crawford, James Michael, Arab, Alabama, Deceased 11/1/74

Venning, Edward Worthington, Guntersville, Alabama, Deceased 6/15/74

Montgomery County

Strong, Quentin Roosevelt, Montgomery, Alabama, Deceased 10/27/74

CHANGES OF ADDRESS

Baldwin County

Weathers, Bobby W., Bay Minette, to 402 9th Ave. S. W., LaFayette, Ala. 36862.

Houston County

Wells, Buren E., present Dothan to P. O. Box 7149, Dothan, Ala. 36301.

Jefferson County

Applebaum, Samuel L., present Bimingham to 3930 Montclair Rd. No. J, Birmingham, Alabama 35213.

(Continued on Page 319)

PHYSICIAN PLACEMENT SERVICE IN ALABAMA

The Physician Placement Service of the Medical Association of the State of Alabama is designed to assist both physicians and communities. MASA members having knowledge of practice opportunities or wishing to relocate their own practices are urged to communicate with the Placement Service. For further information: write Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, 19 South Jackson Street, Montgomery, Alabama 36104, or Telephone 263-6441.

Locations Wanted

General Practice—

Age 33; University of Saskatchewan, 1965; Board eligible; seeking associate or group practice. LW-1

Age 30; University of Kansas, 1970; Board certified; seeking associate or group practice. Available July 1975. LW-1/1

Age 33; Albany University, 1972; National Board; seeking solo, associate, group or industrial practice. Available March 1975. LW-1/2

Internal Medicine—

Age 32; Louisiana State University, 1967; Board certified; seeking associate, group or institutional practice. Available July 1975. LW-4/10

Age 31; University of Oklahoma, 1970; Board eligible; seeking group practice. Available July 1975. LW-4/11

Age 31; Downstate Medical Center, 1968; National Board, Board certified; seeking associate, group or institutional practice (interest in cardiology); Available July 1975. LW-4/13

Age 34; Indiana University, 1968; Board certified-int. med.; Board eligible-nephrology; seeking group practice. Available July 1975. LW-4/14

Age 31; Medical College of Georgia, 1968; Board eligible; seeking associate practice in North Alabama or coastal area. Available July 1975. LW-4/4

Age 33; Medical College of South Carolina, 1966; Board certified; seeking group or associate. Available September 1975. LW-4/5

Age 32; University of Arkansas 1968; Board eligible; seeking associate, group or institutional practice (interest in pulmonary medicine). Available July 1975. LW-4/12

Age 29; Medical College of Georgia, 1971; National Board; Available July 1975. (internal medicine-gastroenterology) preferably South Alabama, Mobile. LW-4/16

Obstetrics-Gynecology—

Age 32; Medical College of Georgia, 1968; Board eligible; seeking associate practice. Available July 1975. LW-5

Ophthalmology—

Age 31; Vanderbilt, 1968, National Board; Available July 1975. LW-10/2

Age 31; Vanderbilt University 1968; National Board; Available July 1975. LW-10/1

Age 33; Tulane, 1967, Board eligible, seeking solo, associate, group or institutional practice. LW 10/3

Age 29; Baylor University, 1971, seeking associate or institutional practice. Available July 1975. LW-10/4

Pediatrics—

Age 30; Georgetown Medical School, 1970; National Board; Board eligible; seeking associate, group, industrial practice. Available July 1975. LW-7/4

Neurosurgery—

Age 35; Creighton University, 1966; National Board, Board eligible; seeking solo, associate, group or institutional practice. Available July 15, 1975. LW-3

Psychiatry—

Age 31; University of Alabama, 1969; Board eligible; seeking associate, group or institutional practice. Available May-June 1975. LW-6/1

Radiology—

Age 31; University of Texas, 1969, Board eligible, seeking associate or group practice (diagnostic radiology). Available July 1975. LW-11

Age 30; University of Alabama, 1970; Board eligible; National Board; seeking associate, industrial or institutional practice. Available July 1975. LW-11/1

Surgery—

Age 32; New York Medical College, 1968; National Board, Board certified; seeking solo, associate or group practice. Available July 1975. LW-8/2

Age 34; Bowman Gray 1966; Board certified; seeking associate or group. Available August 1975. LW-8/3

Urology—

Age 31; Case Western Reserve, 1968, Board eligible, seeking associate, group or academic position. Available May-June 1975. LW-9/5

Age 40; Medical University of South Carolina, 1961, Board certified, seeking solo, associate, group or institutional practice. Available January 1975. LW-9/6

Age 39; Cornell University, 1961; Board certified; National Board; seeking associate or group practice. LW-9/4

Physicians Wanted

General Practitioners—

Unique opportunity for Family Practice in city of 40,000 population, located in Central Alabama. Good location for outdoor activities, near larger cities. PW-1

Opportunity for General Practitioner in Central Alabama community with a trade area of 30,000 to 35,000 population. Nearest large city, 10 miles, 135,000 population. Established practice available due to recent death of physician. Financial assistance available to offset moving expenses. PW-2

Opportunity for General Practitioner in town of 3,000 population located in west Alabama in trade area of 20,000 population. There is a 30-bed hospital in the town. Nearest large city is 50 miles distant, population of 150,000. The Medical Clinic Board is authorized by the town to provide office space and arrange adequate housing. Farming and industry in the community. Churches, schools and recreational activities. PW-3

Opportunity for General Practitioner in town of 2,000 population in trade area of 4,300 population located in south Alabama. Nearest hospital located 17 miles away in the nearest large city of 36,000 population. A physician was in the town until his retirement three years ago. Office space and housing readily available. Farming and textile industry. School, churches and service clubs. PW-4

Physician wanted for general practice in town of 7,000 population with trade area of 15,000 population located in central Alabama. 35-bed hospital located in town. Office space available near hospital. Nearest large city with population of 50,000 is 30 miles away. Numerous churches and schools. Lumber and textile industry. Recreational activities and civic clubs. PW-8/2

Physician wanted for general practice, group or associate, in University town of 40,000 population. Salary and partnership negotiable. PW-1/1

Associate wanted in a three physician general practice in a rural county near Mobile. Salary initially with anticipated early partnership arrangement. 30-bed county hospital adjoining the office. PW-3/3

Special Openings—

One or more **Pediatricians** and one or more **Internal Medicine** and/or **Family Practitioners** wanted in town located in northwestern section of the state. 63-bed general short term acute city-owned hospital, accredited by JCAH. The City has built a modern, new clinic building adjacent to the hospital. Office suites available rent free for first 12 months. Salary offered to physicians by the city for the first 6 months, non-refundable. PW-20

Physician wanted for Occupational Health Clinic at Space Flight Center, Huntsville, Alabama. Board certified or eligible in occupational medicine, aerospace medicine, or internal medicine. No week ends or night duty. PW-21

Emergency Physicians, P. A. provides physicians for several Birmingham hospitals. EPPA is a fee for service professional corporation. Join a four-man group, salary, bonus, paid vacation, medical meeting, disability, life, health and professional liability insurance, 44-hour work week. Stock ownership in the P. A. is available as a percentage of profits. PW-22

Wanted—2 Internists, 2 Ob-Gyn, 2 Pediatricians, 1 Urologist, 1 Anesthesiologist. Fee for service basis, Gross guarantee 1st and 2nd year. New office space to be available next to hospital. 100-bed hospital, modern well equipped, fulltime radiologist and pathologist. Two general surgeons and 9 general practitioners now serving population base 40,000. Unemployment in area less than one percent. Excellent recreation area. Invitations to visit with expenses paid will be directed to those qualified. PW-12

General Surgeon and Ophthalmologist wanted for community of 22,000 population and 45,000 service area. New hospital with eight general practitioners and one Board certified radiologist. Schools for blind and deaf located in the town. Excellent schools and recreational facilities. PW-11

Notice of Change

In the June issue of the Journal, all references to H-Influenza Vaccine that appear in the article by Andrew M. Brown, M. D., Gadsden, entitled "Management of Herpes Zoster With H-Influenza Vaccine, A Preliminary Report," should be changed to read simply Influenza Vaccine, since the material refers to the virus and not the bacterial vaccine.

Physician Recruitment Making Progress In North Alabama

A question which arises with recurring frequency throughout Alabama communities has been one of "how does a community go about recruiting a physician." Too often, the answer may lie within the very personality of the particular community. Three North Alabama communities of note have taken a reflective look at themselves and what they have to offer. As a result, they have begun recruiting efforts in ways which best suit their own particular needs and resources.

Due to the consolidated efforts of the Madison County Medical Society, the Madison County Chamber of Commerce and the Huntsville Industrial Expansion Committee, a recruitment committee was formed this spring to procure two to six family practitioners for the Huntsville area, prior to the time when the residency program at UAH could produce some functioning physicians within the community. The committee drafted a letter, which described the Huntsville area, its needs, as well as those opportunities available for family practice. The letter and an informative community packet were mailed to 1974 summer graduates of family practice residencies, after a phone call had been made to alert these physicians to the opportunities in Huntsville.

The committee did not stop there. They went to work on establishing a representative group, which included educators, clergymen, attorneys, real estate and banking officials, to show the physicians around whenever they visited the community. This group provided insight for the visitors into the recreational, educational, religious and business lives of their community.

To date, the results have been gratifying. One family physician will begin his practice there in January, 1975, with two other family practitioners making plans now to begin a practice together soon afterwards. The report of expenses incurred has been of minimal consequence. These expenses have come from the traveling expenses of the visitors.

(Continued on Page 312)

Rondomycin®
(methacycline HCl)

CONTRAINDICATIONS: Hypersensitivity to any of the tetracyclines.
WARNINGS: Tetracycline usage during tooth development (last half of pregnancy to eight years) may cause permanent tooth discoloration (yellow-gray-brown), which is more common during long-term use but has occurred after repeated short-term courses. Enamel hypoplasia has also been reported. **Tetracyclines should not be used in this age group unless other drugs are not likely to be effective or are contraindicated.**
Usage in pregnancy. (See above **WARNINGS** about use during tooth development.)
Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.
Usage in newborns, infants, and children. (See above **WARNINGS** about use during tooth development.)
All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrease in fibula growth rate observed in prematures given oral tetracycline 25 mg/kg every 6 hours was reversible when drug was discontinued.
Tetracyclines are present in milk of lactating women taking tetracyclines.
To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The anti-anabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.
Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.
PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.
In venereal disease, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.
Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.
In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).
Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.
Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.
ADVERSE REACTIONS: Gastrointestinal (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in the anogenital region.
Skin: maculopapular and erythematous rashes, exfoliative dermatitis (uncommon). Photosensitivity is discussed above (See **WARNINGS**).
Renal toxicity: rise in BUN, apparently dose related (See **WARNINGS**).
Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.
Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.
Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.
Over prolonged periods, tetracyclines have been reported to produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.
USUAL DOSAGE: Adults—600 mg daily, divided into two or four equally spaced doses. More severe infections: an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. Gonorrhea: In uncomplicated gonorrhea, when penicillin is contraindicated, 'Rondomycin' (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule: 900 mg initially, followed by 300 mg q.i.d. for a total of 5.4 grams.
For treatment of syphilis, when penicillin is contraindicated, a total of 18 to 24 grams of 'Rondomycin' (methacycline HCl) in equally divided doses over a period of 10-15 days should be given. Close follow-up, including laboratory tests, is recommended.
Eaton Agent pneumonia: 900 mg daily for six days.
Children—3 to 6 mg/lb/day divided into two to four equally spaced doses.
Therapy should be continued for at least 24-48 hours after symptoms and fever have subsided.
Concomitant therapy: Antacids containing aluminum, calcium or magnesium impair absorption and are contraindicated. Food and some dairy products also interfere. Give drug one hour before or two hours after meals. Pediatric oral dosage forms should not be given with milk formulas and should be given at least one hour prior to feeding.
In patients with renal impairment (see **WARNINGS**), total dosage should be decreased by reducing recommended individual doses or by extending time intervals between doses.
In streptococcal infections, a therapeutic dose should be given for at least 10 days.
SUPPLIED: 'Rondomycin' (methacycline HCl) 150 mg and 300 mg capsules, syrup containing 75 mg/5 cc methacycline HCl.

Before prescribing, consult package circular or latest PDR information.
Rev. 6/73

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CRANBURY, NEW JERSEY 08512



When the focus is on bronchitis due to susceptible strains of *H. influenzae* and pneumococci*

Rondomycin® 300 mg. Capsules

[methacycline HCl]

Delivers from the very first dose:

Studies show that after the first dose serum levels rapidly rise above minimum *in vitro* inhibitory concentrations

*Since many strains are known to be resistant, routine sensitivity testing is recommended.

The Role of the Detail Man

Opinion & Dialogue

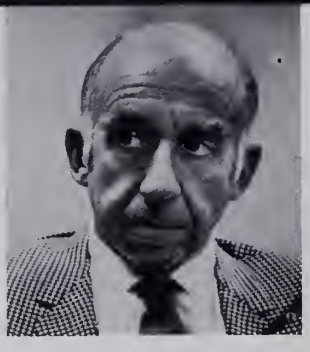


Dr. Willard Gobbell
Family Physician
Encino, California

"I may be prejudiced, but I am very much in favor of the detail men I meet. Most of them are knowledgeable about the drugs they promote and can be a great help in acquainting me with new medication."

Family Physician's Perception

I think that most general practitioners in this area feel as I do about the detail man. Over the years I have gotten to know most of the men who visit me regularly and they in turn have become aware of my particular interests and the nature of my practice. They, therefore, limit their discussion as much as possible to the areas of interest to me. Since I usually see the same representative again in future visits, it is in his best interest to supply me with the most honest, factual, as well as up-to-date information about his products.



Dr. Jeremiah Stamler
Chairman
Department of Community Health and Preventive Medicine, and Dingman Professor of Cardiology
Northwestern University Medical School

"In the total picture of dealing with health problems in this country there is a potential for detail men to play a meaningful role."

The Positive Influence

My contact with representatives and salesmen of the pharmaceutical industry is the type of contact that people in a medical center, research people, and academic people have and that's in all likelihood on a somewhat different level from that of the practicing physician.

Let me touch on how I personally perceive the role of the sales representative. These men reach large numbers of health professionals. Thus they could be—and at times actually are—disseminators of useful information. They could consistently serve a real educational function in their ability to discuss their products.

At present they do distribute printed material, brochures and pamphlets—some of it scientifically sound and therefore truly useful—as well as some excellent film produced by the pharmaceutical industry. When they function in th

He a Source of Information?

Yes, with certain reservations. ne average sales representative as a great fund of information out the drug products he is re- onsible for. He is usually able to nswer most questions fully and telligently. He can also supply prints of articles that contain a eat deal of information. Here, o, I exercise some caution. I usu- ly accept most of the statements nd opinions that I find in the apers and studies which come m the larger teaching facilities. goes without saying that a physi- an should also rely on other urces for his information on harmacology.

raining of Sales Representatives

Ideally, a candidate for the osition as a sales representative a pharmaceutical company ould be a graduate pharmacist no has a questioning mind. I don't ink this is possible in every case, nd so it becomes the responsibility of the pharmaceutical company to train these individuals comprehensively. It is of very great importance that the detail man's knowledge of the product he represents be constantly reviewed as well as updated. This phase of the sales representative's education should be a major responsibility of the medical department of the pharmaceutical company.

I am certain that most of these companies take special care to give their detail men a great deal of information about the products they produce—information about indications, contraindications, side effects and precautions. Yet, although most of the detail men are well informed, some, unfortunately, are not. It might be helpful if sales representatives were reassessed every few years to determine whether or not they are able to fulfill their important function. Incidentally, I feel the same way about periodic assessments of everyone in the health care field, whether they be general practitioners, surgeons or salesmen.

Value of Sampling

I personally am in favor of limited sampling. I do not use sampling in order to perform clinical testing of a drug. I feel that drug testing should rightly be left to the pharmacology researcher and to the large teaching institutions where such testing can be done in a controlled environment.

I do not use samples as a "starter dose" for my patients. I do, however, find samples of drugs to be of value in that they permit me to see what the particular medication looks like. I get to see the various forms of the particular medication at first hand, and if it is in a liquid form I take the time to taste it. In that way I am able to give my patients more complete information about the particular medications that I prescribe for them.

---

apacity they are indeed useful; rticularly in the fact that they sseminate broadly based educa- nal material and serve not just "pushers" of their drugs.

ie Other Side of the Coin

Obviously, the pharmaceuti- l companies are not producing all is material as a labor of love— ey are in the business of selling oducts for profit. In this regard e ambitious and improperly moti- ted sales representative can ert a negative influence on the acticing physician, both by pre- nting a one-sided picture of his oduct, and by encouraging the actitioner to depend too heavily drugs for his total therapy. In ese ways, the salesman has often storted objective reality and ndermined his potential role as an ducator.

ie Industry Responsibility

Since the detail man must be information resource as well as representative of his particular harmaceutical company, he ould be carefully selected and thoroughly trained. That training, perforce, must be an ongoing one. There must be a continuing battle within and with the pharmaceutical industry for high quality not only in the selection and training of its sales representatives, but also in the development of all of its promotional and educational material.

The industry must be ready to accept constructive as well as corrective criticism from experts in the field and consumer spokesmen, and be willing to accept independent peer review. The better educated and prepared the salesman is, the more medically accurate his materials, the better off the pharmaceutical industry, health professionals and the public—*i.e.*, the patients—will be.

Physician Responsibility

The practicing physician is in constant need of up-dated information on therapeutics, including drugs. He should and does make use of drug information and answers to specific questions supplied by the pharmaceutical representative. However, that information must not be his main source of continuing education. The practitioner must keep up with what is current by making use of scientific journals, refresher courses, and information received at scientific meetings.

The practicing physician not only has the right, but has the responsibility to demand that the pharmaceutical company and its representatives supply a high level of valid and useful information. I feel certain that if such a high level is demanded by the physician as well as the public, this demand will be met by an alert and concerned pharmaceutical industry.

From my experience, my impression is that sectors of the pharmaceutical industry are indeed ethical. I challenge the industry as a whole to live up to that word in its finest sense.

Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D.C. 20005



(Continued from Page 308)

The supply of physicians for Cullman County has taken a turn upward in recent weeks, due in part to the county hospital's building program. The need for adequate hospital facilities was at a critical stage, until community leaders saw the deteriorating medical services about them and decided upon a program which would best fit their community. With management assistance from Baptist Medical Centers, the Cullman County Hospital embarked upon a $6 million building program. At the same time, Doctors Hospital recently opened with a 50-bed capacity. As a result, these progressive programs have encouraged four family physicians to move into the county recently, two since September, 1974.

The community of Winfield in Marion County has taken a different approach in its efforts to combat the doctor shortage problem. Adjacent to the hospital, a new clinic has been constructed and the city is advertising that this modern clinic has office space available rent free for the first 12 months. In addition, the attraction continues with the physician's salary being offered to him by the city for the first six months until he gets his practice established. Now for the clincher: the salary is non-refundable.

An attractive recruitment package is only part of the answer. Rural communities are hard-pressed in particular when it comes to offering economic incentives, as compared to those of a large metropolitan area. However, such recruitment incentives do play a major role in attracting a physician and they can reach fruition through the cohesive efforts of a community working together. The citizens around Huntsville, Cullman and Winfield will attest to that.

The Guest House
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Beautiful Pool
Three Lounges with entertainment nightly
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up to five hundred people

"Everybody Is Somebody At The Guest House"

CONTINUING MEDICAL EDUCATION

by Larry Dixon

CME Questionnaire

DIRECTIONS: Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the *one* that is BEST in each case.

1. A 21-year-old man was admitted to the emergency room with an acute attack of asthma. He was alert and cooperative, but coughing and dyspneic. Arterial blood gas studies are most likely to show:

   A. hypoxemia with hypocapnea

   B. respiratory acidosis

   C. normal values

   D. compensated metabolic alkalosis

   E. metabolic acidosis

2. Respiratory stimulants are useful in treating patients with:

   A. severe respiratory acidosis

   B. kyphoscoliotic heart disease in respiratory failure

   C. crushed chest injuries with hypoventilation

   D. neuromuscular paralysis from the Guillain-Barré syndrome

   E. none of the above

3. The most effective means of lowering pulmonary artery pressure in a patient who has chronic obstructive lung disease with cor pulmonale is by administration of:

   A. digoxin (Lanoxin)

   B. aminophylline

   C. oxygen

   D. a nebulized solution of isoproterenol (Isuprel)

   E. ethamivan (Emivan)

4. A patient was recently hospitalized with cavitary tuberculosis. Three members of his immediate family are found to have positive Mantoux tests; The three-year-old has an area of induration of 10 mm; the 15-year-old has a 155 mm indurated area; and the 40-year-old has a 5 mm erythematous area with no induration.

   Which of the following is recommended?

   A. Isoniazid and para-aminosalicylic acid for one year for all three persons

   B. Isoniazid for one year for all three persons

   C. Isoniazid for one year for the two children

   D. Isoniazid for the three-year-old child alone

   E. No immediate treatment but careful follow-up with serial roentgenograms and prompt treatment if there is a change for the worse.

5. A 27-year-old woman with diabetes insipidus has had three episodes of pneumothorax. A roentgenogram of the chest reveals bilateral lower lung interstitial infiltrates.

   The most likely diagnosis is:

   A. histoplasmosis

   B. histiocytosis X

   C. Hamman-Rich syndrome

   D. Hurler's syndrome

   E. sarcoidosis

6. A 34-year-old woman has a 1.5-cm coin lesion in the right lower lobe. A roentgen-

(Continued on Page 314)

ogram of the chest taken one year ago was normal. Two years ago she had irradiation treatment for carcinoma of the cervix. Pelvic examination now discloses only moderate bilateral adnexal induration thought to be due to the irradiation; there is no evidence of bone or liver metastases. Planigrams now confirm soft tissue density and the absence of calcium. Intravenous pyelogram is normal. The tuberculin skin test is positive.

Which of the following would constitute the management of choice?

A. Observation alone

B. Administration of cyclophosphamide (Cytoxan)

C. Irradiation therapy

D. Lobectomy

E. Administration isoniazid

7. A 45-year-old man has had rheumatoid arthritis for many years. He recently developed cough and dyspenea. A roentgenogram of the chest revealed bilateral pleural effusion with basilar infiltrates. The blood glucose was 105 mg/100 ml; the pleural fluid glucose was 15 mg/100 ml.

The most likely cause of the pleural effusion is:

A. empyema

B. tuberculosis

C. rheumatoid lung disease

D. carcinoma of the lung

E. lupus erythematosus

8. In the immediate resuscitation of an apneic person admitted to the emergency room, the most useful ventilator is:

A. a self-inflating (Ambu) bag

B. a pressure-cycled intermittent positive pressure breathing device

C. a volume-determined intermittent positive pressure breathing device

D. an automatic cycling pulmonor

E. an Engstrom respirator

9. Which of the following is the treatment of choice for patients with intractable asthma who are experiencing respiratory failure with respiratory acidosis, hypercapnia and hypoxemia?

A. Administration of bicarbonate solution intravenously

B. Administration of a series of subcutaneous injections of epinephrine

C. Endotracheal intubation, and inducement of muscle paralysis and controlled ventilation

D. Administration of mucolytic agents by intermittent positive pressure breathing

E. Administration of ether in oil per rectum

10. A 59-year-old retired welder has had chronic airway obstruction manifested by progressive dyspnea for 10 years. He has had no prior hospitalization. After having a "cold," it was noticed that he had increased coughing and expectoration. He was restless and confused. Physical examination showed diaphoresis, tachycardia and markedly depressed breath sounds. Clinical signs of congestive heart failure were present.

The most important diagnostic aid at this point would be:

A. determination of circulation time

B. an electrocardiogram

C. a roentgenogram of the chest

D. determination of arterial blood gases

E. determination of serum electrolytes

11. A 40-year-old housewife has found to have a pulmonary lesion on a routine roentgenogram of the chest. The round, 2-cm diameter lesion was located in the midportion of the right lung. There was a small fleck of calcium visible in the center of the lesion. No history of pulmonary disease could be obtained. The patient

was a lifetime resident of Tennessee. She did not smoke.

The most likely diagnosis is

A. alveolar cell carcinoma

B. tuberculoma

C. histoplasmoma

D. coccidioidoma

E. hamartoma

12. The incidence of undesirable complications, such as laryngotracheal damage, by oral endotracheal tubes, increases after

A. 4 to 8 hr

B. 8 to 24 hr

C. 24 to 48 hr

D. 48 to 72 hr

E. a much longer period

Correct Answers: 1-A, 2-E, 3-C, 4-C, 5-B, 6-D, 7-C, 8-A, 9-C, 10-D, 11-C, 12-D

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The Upper Functional G.I. Disorder

The Pseudo-ulcer

Ulcer-like symptoms: no G.I. pathology



X-ray demonstrates normal stomach.

The patient is convinced he has an ulcer. However, symptoms are not quite typical, and x-ray findings are negative. These findings and the results of additional diagnostic procedures exclude an organic basis for the patient's complaints. A diagnosis of "upper functional gastrointestinal disorder" is made, which is supported by the fact that episodes of painful symptoms coincide with episodes of excessive anxiety, as indicated by the history.

It may be useful to explain to the patient the mechanism by which emotions upset normal G.I. functioning, resulting in hypersecretion and hypermotility and thus causing such symptoms as nausea and epigastric pain. In upper functional gastrointestinal disorders, counseling by the primary physician can often help the patient understand how excessive anxiety may cause flare-ups of G.I. symptoms.

A disproportionate number of patients seen by the general practitioner suffer from functional disorders, as do more than half of those seen by the gastroenterologist.* Where milder cases may respond to counseling alone, if symptoms are severe and disabling to any degree, a suitable regimen may include medication to reduce the symptoms and the excessive anxiety that often provokes these distressing symptoms.

In these cases, Librax as an adjunct can greatly contribute to the course of therapy. Its dual action can offer relief of both painful symptoms and excessive anxiety, because each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br. The antianxiety action of Librium® (chlordiazepoxide HCl) makes Librax exceptional among drugs for certain gastrointestinal disorders associated with excessive anxiety; the clidinium bromide (Quarzan™) component furnishes dependable antisecretory-antispasmodic action. Dosage is flexible; it may be adjusted according to your patient's requirements within the range of 1 or 2 capsules three or four times daily, up to 8 capsules daily in divided doses. Please consult the complete product information regarding precautions and adverse reactions.

*Rome HP, Brannick TL: Orientation and mechanism of functional disorders; clinicophysiologic correlation, chap. 133, in *Gastroenterology*, edited by Bockus HL. Philadelphia, W.B. Saunders Company, 1965, p. 1116.

An adjunct in anxiety-related upper functional G.I. disorders

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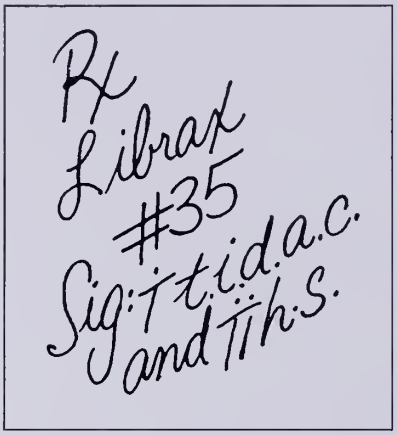
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Please see summary of product information on following page.

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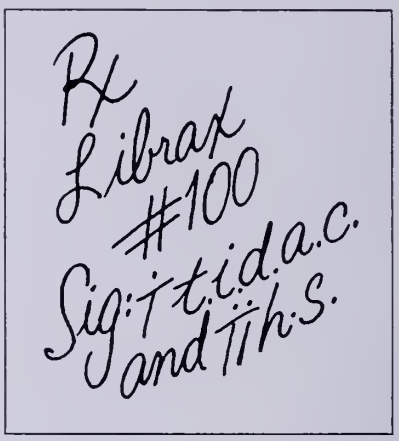
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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Symptomatic relief of hypersecretion, hypermotility and anxiety and tension states associated with organic or functional gastrointestinal disorders; and as adjunctive therapy in the management of peptic ulcer, gastritis, duodenitis, irritable bowel syndrome, spastic colitis, and mild ulcerative colitis.

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinicall

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libi —all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appea during and after treatment; blood dyscrasias (including agranulcytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of mouth, blurrin of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

Dosage: Individualize for maximum beneficial effects. Usual maintenance dose is 1 or 2 capsules, 3 or 4 times a day, before meals and at bedtime. Geriatric patients—see Precautions.

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Johnson, Jimmy R., present Madison to P. O. Box 56, Madison, Ala. 35758.

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Macon County

Dowe, Calvin Ray, b 25, mc Meharry 55, sb 56, 108 Reed Avenue, Tuskegee Institute, Ala. 36088. I.

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Adendorff, Stuart J., 1344 Brundidge St., Troy, Ala. 36081, From Jefferson County Medical Society.

Crawford, Willis V., 404 Wilson Dr., Troy, Ala. 36081. From Jefferson County Medical Society.

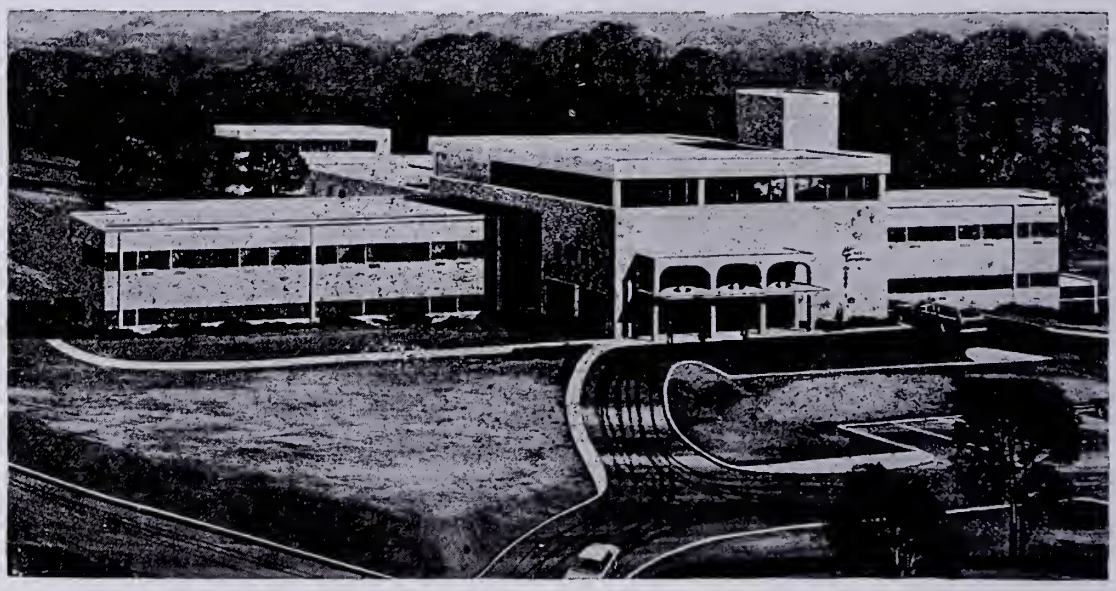
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Talladega County

Gurley, Jerry N., Medical Office Park, P. O. Box 76, Talladega, Ala. 35160, From Jefferson County Medical Society.

(Continued on Page 321)



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CHANGES OF LICENSURE

Jefferson County

Arias, Manuel, Licensure-recip. Ga. 72.
Oh, Shing Joong, Licensure-recip. Ga. 74.

Changes

Colbert County

Mitchell, James A., change special listing to-Ind.

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Acting Secretary for County Society - Dennis A. Brown, M. D., Rt. 3, Arab, Alabama 35016.

NEW TELEPHONE NUMBERS

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American Trauma Society Reaches Into Alabama

The rising number of accidental injuries and deaths is an American disease of staggering proportion known as Trauma. Accidental injuries and deaths have reached an incredible magnitude in our modern society. Accidents are the fourth leading cause of deaths—first among young people—in the United States today. Some 11.4 million Americans were temporarily disabled and 420,000 permanently disabled during 1973. The knowledge to implement and the equipment to prevent many accidental deaths exist today, but ability to deliver a coordinated and dependable program is tragically lacking throughout the nation.

In 1966, representatives of leading national medical organizations recommended that an American Trauma Society be created to deal with the problem of accidental death. The American Trauma Society was incorporated then in the State of Delaware, by-laws for a National Society were established and on December 5, 1971, the organization was initiated in Philadelphia. The American Trauma Society became a reality as a voluntary health organization working to save lives and reduce disabilities resulting from accidents through a program of education, training, research and development of emergency medical services.

In Alabama, a state-wide program was envisioned which would focus on these accidental deaths and injuries and which would seek support from interested laity. The envisioned dream became fact on August 8, 1974, when the Alabama Division of the American Trauma Society was incorporated. The Alabama Division has 3 objectives: (1) public awareness of it and its programs; (2) to seek membership and, (3) to stimulate enough interest to facilitate forming county units.

The efforts to develop an Alabama Division have reached fruition. Dr. Alan R. Dimick, Birmingham, Dr. Phillip A. Snodgrass, Mobile and their group are to be commended for their fine work. They have sought to create "a loud voice", resounding across this state, spreading its message to eliminate accidental death and disability for Alabamians. Their "voice" is being heard today.

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INDICATIONS: For the prompt symptomatic relief of bronchial asthma, emphysema and bronchiectasis. The Mudranes dilate the bronchi and liquefy mucus plugs. DOSAGE: Tablet; One tablet with a full glass of water 3 or 4 times daily as required. Divide tablet for child's dose. Elixir; Children, 1 cc for each 10 lbs. of body weight. May be repeated 3 or 4 times a day. Adult, one tablespoonful 4 times daily. All doses should be followed with a glass of water.

CONTRAINDICATIONS: Aminophylline/Theophylline is contraindicated in the presence of severe cardiac arrhythmias and patients with massive myocardial damage. Ephedrine, in presence of severe heart disease, extreme hypertension, and in hyperthyroidism. Phenobarbital, in porphyria and in patients with known phenobarbital sensitivity. Potassium Iodide, in pregnancy (to protect the fetus against possible iodine-induced depression of thyroid activity), in tuberculosis (produces gumma dissolution), and in acne; also in the presence of known iodide sensitivity. PRECAUTIONS: Aminophylline/Theophylline should be avoided in patients with massive myocardial damage and/or severe cardiac arrhythmias. In children, overdose may cause vomiting, cardiac arrhythmias, and severe agitation. Ephedrine should be used with caution in the presence of severe cardiac disease, particularly arrhythmias and angina pectoris; avoid in hyperthyroidism and severe hypertension. Phenobarbital may be habit-forming. Avoid overdosage. Potassium Iodide: Discontinue in the presence of skin rash, swelling of the eyelids and severe frontal headache. Long use may cause goiter. ADVERSE REACTIONS: Aminophylline/Theophylline may cause nausea, cardiac arrhythmias, and aggravate severe myocardial disease. It may cause headaches and tachycardia. Vomiting and dizziness are not uncommon. Ephedrine: In patients hypersensitive to CNS stimulation, ephedrine may cause nervousness, tachycardia, extrasystole and ventricular arrhythmias. May cause urinary retention, especially in the presence of partial prostatic obstruction. Psychoneurosis may be aggravated. Pre-existing anginal pain will be aggravated. Phenobarbital may produce severe skin rash. Avoid overdosage. May be habit-forming. Potassium Iodide may cause nausea. Over very long period of use, iodides cause goiter. Discontinue if patient develops skin rash, eye irritation, eyelid swelling, or severe frontal headache.

HOW SUPPLIED: Mudrane and Mudrane GG available in bottles of 100 and 1000 tablets; Mudrane-2 and Mudrane GG-2 in 100s; Elixir in pints and half-gallons.

Federal law prohibits dispensing without prescription.

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MEDICAL ASSOCIATION OF THE STATE OF ALABAMA · 1873 ·

PRESIDENT'S PAGE

J. GARBER GALBRAITH, M.D., PRESIDENT



A colleague recently stated that we passed the crossroads in medicine some time ago. Organized medicine has reached a point where the pavement in the highway is beginning to crack due to the weight of the traffic and the obsolescence of the equipment we are employing to get the job done. This is not a treatise on highway management, but a way of saying that we are in trouble. It has been clearly evident for the past decade, ever since passage of the Medicare bill by Congress, that the control of our destiny was slipping out of our hands. This trend is now accelerated as we are faced with the likelihood of a National Health Service bill during this session of Congress.

In order to have the most effective impact on evolving legislation in Washington, we need able and aggressive leadership at the national level. All who know our AMA President, Malcolm Todd, would agree that he and his predecessor, Russell Roth, are excellent leaders. However, they need the support of all of us at the grass roots level in providing input to our Congressional representatives on health matters. Furthermore, it is fervently hoped that the AMA can resolve its internal financial problems quickly and soundly, so that its full strength and attention can be directed toward those forces which would take over the control of medical practice in this country. It is particularly unfortunate and untimely that the AMA finds itself beset with internal problems at such a crucial time, since there is no other organization which can possibly be the spokesman for organized medicine at the national level. It therefore behooves all of us to support the AMA whole-heartedly in the full knowledge that the only alternative is complete acquiescence to government control.

Health manpower legislation is another highly important area. The medical schools are being encouraged to turn out more graduates and at the same time it is proposed that the number of graduate training posts be severely curtailed. Increasing numbers of graduates are being encouraged to go into primary care specialties where there has been a gradually increasing shortage. This is good, provided we are not locked into a rigid system which could stifle progress in other fields of medicine in the future. We should remember that there was great public demand for more sophisticated and specialized medical care after World War II which greatly influenced the trend toward more specialty training. The pendulum is now swinging in the other direction, and we should take care to see that the system remains flexible for coping with future needs.

Apropos to health manpower, the matter of the foreign medical graduate needs careful study and action. No one would dispute our responsibility to train FMG's to return to their own developing countries. However, the vast majority stay in the U. S. This constitutes a "brain drain" from those nations least able to lose health care personnel. Currently, some 9,000 FMG's are coming in annually and in several states the vast majority of new medical licensees are FMG's. Many of these have been and are making a valuable contribution to medical education and health care in this country. However, Congress should take a hard look at this problem and evolve a new immigration system for those who intend to locate permanently in the U. S. This is just another of those areas where organized medicine should assume a leadership role in making constructive recommendations to Congress.

Like it or not, the AMA is our only hope in coping with many of the problems facing us today. Let's all support the AMA!

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WOMAN'S AUXILIARY

EVELYN O'BRIEN, PRESIDENT



At its Fall Leadership Conference, the board of directors of the Woman's Auxiliary to the AMA directed that the organization change its name to "AMA Auxiliary", and that its seal be redesigned from the current caduceus to one incorporating the staff of Aesculapius. The changes must be approved by the organization's house of delegates at its annual meeting in June. A recent bylaws' change provides for men to become members of the Auxiliary, hence the need for a name change.

Also adopted at the fall conference was a new programming format, recommended by the AMA's Office of Planning, which would place emphasis on strengthening community action programs of local auxiliary units. Auxiliary President Mrs. Howard Liljestrand said that the format is intended to let programs follow a "bottom-up" rather than a "top-down" emphasis. The main idea of the new concept is the strong emphasis on program. It is hoped that good programs will result in membership increase and greater effectiveness of the auxiliary. As the new concept is developed, states will have greater flexibility and more voice in the selection of national officers. Workshops are to be continued, but will be changed in type.

A program bank will be developed to facilitate the exchange of ideas between states and counties. States will decide how they can best utilize the program bank. Forms will be sent to all counties so that they can provide information on programs they are involved in; then, this can be sent in to the program bank for the use of other counties interested in the same or similar program.

In order for this new set-up to function, there will have to be changes made in the national bylaws and also in the state bylaws. Nationally, there will be a program coordinator to ensure that the program bank will function smoothly. There will be eight regional councilors, elected at large by region, two per region, by one vote from each state.

It has been recommended that the specific states serviced by each regional councilor be determined annually by the national president in consultation with the executive director and the program coordinator. The method by which the regional councilor can best serve the state can be determined by each state organization.

It has been recommended that the standing committees of the national auxiliary be reduced to focus on AMA-ERF, Bylaws, Communications, Finance, Legislation, Long-Range Planning and Membership. It has been recommended that because the position of the program coordinator is so vital and because that person must be a strong leader who will keep the system flowing smoothly, that the vice president be the program coordinator. Much consideration has been given to this on a national level because of a strong feeling that if the organization is strengthened with good program emphasis,

PRESIDENT—Mrs. Donald J. O'Brien/PRESIDENT-ELECT—Mrs. William Hughes/FIRST VICE-PRESIDENT—Mrs. J. E. Dunn, Jr./NORTHWEST DISTRICT VICE-PRESIDENT—Mrs. Charles Howell/NORTHEAST DISTRICT VICE-PRESIDENT—Mrs. Roland Murphree/SOUTHWEST DISTRICT VICE-PRESIDENT—Mrs. Charles Weaver/SOUTHEAST DISTRICT VICE-PRESIDENT—Mrs. Robert Foy/WAMASA EDITOR—Mrs. William L. Smith.

an increase in membership will follow. The national auxiliary has grown very slowly in the past few years.

If these changes are made on a national level, and there is every reason to believe they will be, our state auxiliary is going to have to change in many ways—bylaws, emphasis and a restructuring of the state-county relationship.

A post-graduate course on "Emergency Room Medical-Surgical Care" is scheduled for the Ochsner Medical Center, New Orleans, April 7-19, 1975. The American Course of Emergency Physicians has granted 96 hours credit toward its CME requirements. Registration is limited to 14. Direct all inquiries to: Division of Education, Alton Ochsner Medical Foundation, 1514 Jefferson Highway, New Orleans, La. 70121.

PHYSICIAN WANTED—Immediate opening for GP wanting to relocate in southern coastal city. 40 hours per week, no nights or week-ends. Federal civilian salary with excellent benefits. Equal Opportunity Employer. Contact U. S. Public Health Service Outpatient Clinic, Savannah, Georgia, 912-232-4321, Ext. 306.

RETIRED OR SEMI-RETIRED M. D. to do Pre-employment physicals at established Industrial Medical Clinic, 20 hours a week. 8:30 A. M. - 12:30 P. M. - Monday through Friday. Contact Dr. C. B. Thuss - 2124 4th Avenue, South- Birmingham, Alabama 35233— (205-323-1661).

Rondomycin®
(methacycline HCl)

CONTRAINDICATIONS: Hypersensitivity to any of the tetracyclines.
WARNINGS: Tetracycline usage during tooth development (last half of pregnancy to eight years) may cause permanent tooth discoloration (yellow-gray-brown), which is more common during long-term use but has occurred after repeated short-term courses. Enamel hypoplasia has also been reported. **Tetracyclines should not be used in this age group unless other drugs are not likely to be effective or are contraindicated.**
Usage in pregnancy. (See above **WARNINGS** about use during tooth development.)
Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.
Usage in newborns, infants, and children. (See above **WARNINGS** about use during tooth development.)
All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrease in fibula growth rate observed in prematures given oral tetracycline 25 mg/kg every 6 hours was reversible when drug was discontinued.
Tetracyclines are present in milk of lactating women taking tetracyclines.
To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The anti-anabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.
Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.
PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.
In venereal disease, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.
Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.
In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).
Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.
Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.
ADVERSE REACTIONS: Gastrointestinal (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in the anogenital region.
Skin: maculopapular and erythematous rashes; exfoliative dermatitis (uncommon). Photosensitivity is discussed above (See **WARNINGS**).
Renal toxicity: rise in BUN, apparently dose related (See **WARNINGS**).
Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.
Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.
Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.
Over prolonged periods, tetracyclines have been reported to produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.
USUAL DOSAGE: Adults – 600 mg daily, divided into two or four equally spaced doses. More severe infections: an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. Gonorrhea In uncomplicated gonorrhea, when penicillin is contraindicated, 'Rondomycin' (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule: 900 mg initially, followed by 300 mg q.i.d. for a total of 5.4 grams.
For treatment of syphilis, when penicillin is contraindicated, a total of 18 to 24 grams of 'Rondomycin' (methacycline HCl) in equally divided doses over a period of 10-15 days should be given. Close follow-up, including laboratory tests, is recommended.
Eaton Agent pneumonia 900 mg daily for six days.
Children – 3 to 6 mg/lb/day divided into two to four equally spaced doses.
Therapy should be continued for at least 24-48 hours after symptoms and fever have subsided.
Concomitant therapy: Antacids containing aluminum, calcium or magnesium impair absorption and are contraindicated. Food and some dairy products also interfere. Give drug one hour before or two hours after meals. Pediatric oral dosage forms should not be given with milk formulas and should be given at least one hour prior to feeding.
In patients with renal impairment (see **WARNINGS**), total dosage should be decreased by reducing recommended individual doses or by extending time intervals between doses.
In streptococcal infections, a therapeutic dose should be given for at least 10 days.
SUPPLIED: 'Rondomycin' (methacycline HCl): 150 mg and 300 mg capsules, syrup containing 75 mg/5 cc methacycline HCl.

Before prescribing, consult package circular or latest PDR information.

Rev. 6/7

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When the focus is on bronchitis due to susceptible strains of *H. influenzae* and pneumococci*

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The Role of the Detail Man

Opinion & Dialogue

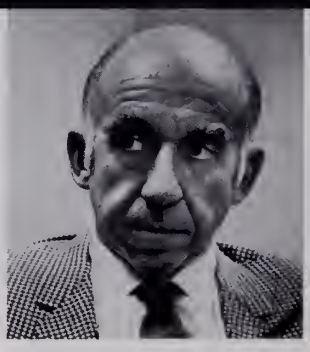


Dr. Willard Gobbell
Family Physician
Encino, California

"I may be prejudiced, but I am very much in favor of the detail men I meet. Most of them are knowledgeable about the drugs they promote and can be a great help in acquainting me with new medication."

Family Physician's Perception

I think that most general practitioners in this area feel as I do about the detail man. Over the years I have gotten to know most of the men who visit me regularly and they in turn have become aware of my particular interests and the nature of my practice. They, therefore, limit their discussion as much as possible to the areas of interest to me. Since I usually see the same representative again in future visits, it is in his best interest to supply me with the most honest, factual, as well as up-to-date information about his products.



Dr. Jeremiah Stamler
Chairman
Department of Community Health and Preventive Medicine, and Dingman Professor of Cardiology
Northwestern University Medical School

"In the total picture of dealing with health problems in this country there is a potential for detail men to play a meaningful role."

The Positive Influence

My contact with representatives and salesmen of the pharmaceutical industry is the type of contact that people in a medical center research people, and academic people have and that's in all likelihood on a somewhat different level from that of the practicing physician.

Let me touch on how I personally perceive the role of the sales representative. These men reach large numbers of health professionals. Thus they could be—and at times actually are—disseminators of useful information. They could consistently serve a real educational function in their ability to discuss their products.

At present they do distribute printed material, brochures and pamphlets—some of it scientifically sound and therefore truly useful—as well as some excellent film produced by the pharmaceutical industry. When they function in th

He a Source of Information?

Yes, with certain reservations. ne average sales representative as a great fund of information bout the drug products he is re- onsible for. He is usually able to nswer most questions fully and telligently. He can also supply eprints of articles that contain a eat deal of information. Here, o, I exercise some caution. I usu- ly accept most of the statements nd opinions that I find in the apers and studies which come om the larger teaching facilities. goes without saying that a physi- an should also rely on other ources for his information on harmacology.

raining of Sales Representatives

Ideally, a candidate for the sition as a sales representative a pharmaceutical company ould be a graduate pharmacist ho has a questioning mind. I don't ink this is possible in every case, nd so it becomes the responsibility of the pharmaceutical company to train these individuals comprehensively. It is of very great importance that the detail man's knowledge of the product he represents be constantly reviewed as well as updated. This phase of the sales representative's education should be a major responsibility of the medical department of the pharmaceutical company.

I am certain that most of these companies take special care to give their detail men a great deal of information about the products they produce—information about indications, contraindications, side effects and precautions. Yet, although most of the detail men are well informed, some, unfortunately, are not. It might be helpful if sales representatives were reassessed every few years to determine whether or not they are able to fulfill their important function. Incidentally, I feel the same way about periodic assessments of everyone in the health care field, whether they be general practitioners, surgeons or salesmen.

Value of Sampling

I personally am in favor of limited sampling. I do not use sampling in order to perform clinical testing of a drug. I feel that drug testing should rightly be left to the pharmacology researcher and to the large teaching institutions where such testing can be done in a controlled environment.

I do not use samples as a "starter dose" for my patients. I do, however, find samples of drugs to be of value in that they permit me to see what the particular medication looks like. I get to see the various forms of the particular medication at first hand, and if it is in a liquid form I take the time to taste it. In that way I am able to give my patients more complete information about the particular medications that I prescribe for them.

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apacity they are indeed useful; articularly in the fact that they sseminate broadly based educa- onal material and serve not just "pushers" of their drugs.

ne Other Side of the Coin

Obviously, the pharmaceuti- l companies are not producing all is material as a labor of love— ey are in the business of selling oducts for profit. In this regard e ambitious and improperly moti- ted sales representative can ert a negative influence on the acticing physician, both by pre- nting a one-sided picture of his oduct, and by encouraging the actitioner to depend too heavily drugs for his total therapy. In ese ways, the salesman has often storted objective reality and ndermined his potential role as an ducator.

ne Industry Responsibility

Since the detail man must be information resource as well as representative of his particular harmaceutical company, he ould be carefully selected and thoroughly trained. That training, perforce, must be an ongoing one. There must be a continuing battle within and with the pharmaceutical industry for high quality not only in the selection and training of its sales representatives, but also in the development of all of its promotional and educational material.

The industry must be ready to accept constructive as well as corrective criticism from experts in the field and consumer spokesmen, and be willing to accept independent peer review. The better educated and prepared the salesman is, the more medically accurate his materials, the better off the pharmaceutical industry, health professionals and the public—*i.e.,* the patients—will be.

Physician Responsibility

The practicing physician is in constant need of up-dated information on therapeutics, including drugs. He should and does make use of drug information and answers to specific questions supplied by the pharmaceutical representative. However, that information must not be his main source of continuing education. The practitioner must keep up with what is current by making use of scientific journals, refresher courses, and information received at scientific meetings.

The practicing physician not only has the right, but has the responsibility to demand that the pharmaceutical company and its representatives supply a high level of valid and useful information. I feel certain that if such a high level is demanded by the physician as well as the public, this demand will be met by an alert and concerned pharmaceutical industry.

From my experience, my impression is that sectors of the pharmaceutical industry are indeed ethical. I challenge the industry as a whole to live up to that word in its finest sense.

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Measure the results yourself. (Wallace will even send you a complimentary goniometer.)

Indications: Carisoprodol is indicated as an adjunct to rest, physical therapy, and other measures for the relief of discomfort associated with acute, painful musculo-skeletal conditions.
Contraindications: Acute intermittent porphyria and allergic or idiosyncratic reactions to carisoprodol or related compounds such as meprobamate, mebutamate, tybamate.
Warnings: *Idiosyncratic Reactions:* Rarely, extreme weakness, transient quadriplegia, dizziness, ataxia, temporary vision loss, diplopia, mydriasis, dysarthria, agitation, euphoria, confusion and disorientation have appeared within minutes or hours of the first dose. These usually subside in several hours but supportive and symptomatic therapy, including hospitalization, may be necessary.

Pregnancy and Lactation: Safe use not established; weigh potential benefits against potential hazards in pregnancy, nursing mothers (concentrations in breast milk are two to four times that in plasma), or women of childbearing potential.

Children Under Twelve: Not recommended.

Potentially Hazardous Tasks: Driving a motor vehicle or operating machinery.

Additive Effects: Effects of carisoprodol and alcohol, other CNS depressants or psychotropic drugs may be additive.

Drug Dependence: Use cautiously in addiction-prone patient
Precautions: To avoid excess accumulation, use caution in patients with compromised liver or kidney function.
Adverse Reactions: *Central Nervous System:* Drowsiness, dizziness, vertigo, ataxia, tremor, agitation, irritability, headache depressive reactions, syncope, insomnia, idiosyncratic reaction (see "Warnings").

Allergic or Idiosyncratic: In previously unexposed patients, these are usually seen after 1-4 doses and include rash, erythen multiforme, pruritus, eosinophilia, fixed drug eruption with cros reaction to meprobamate. Asthmatic episodes, fever, weakness dizziness, angioneurotic edema, smarting eyes, hypotension an anaphylactoid shock may be manifestations of severe reactions In such cases, stop carisoprodol and initiate appropriate treatment (e.g., epinephrine, antihistamines, corticosteroids).

Cardiovascular: Tachycardia, postural hypotension, facial flushing.

Gastrointestinal: Nausea, vomiting, hiccup, epigastric distres

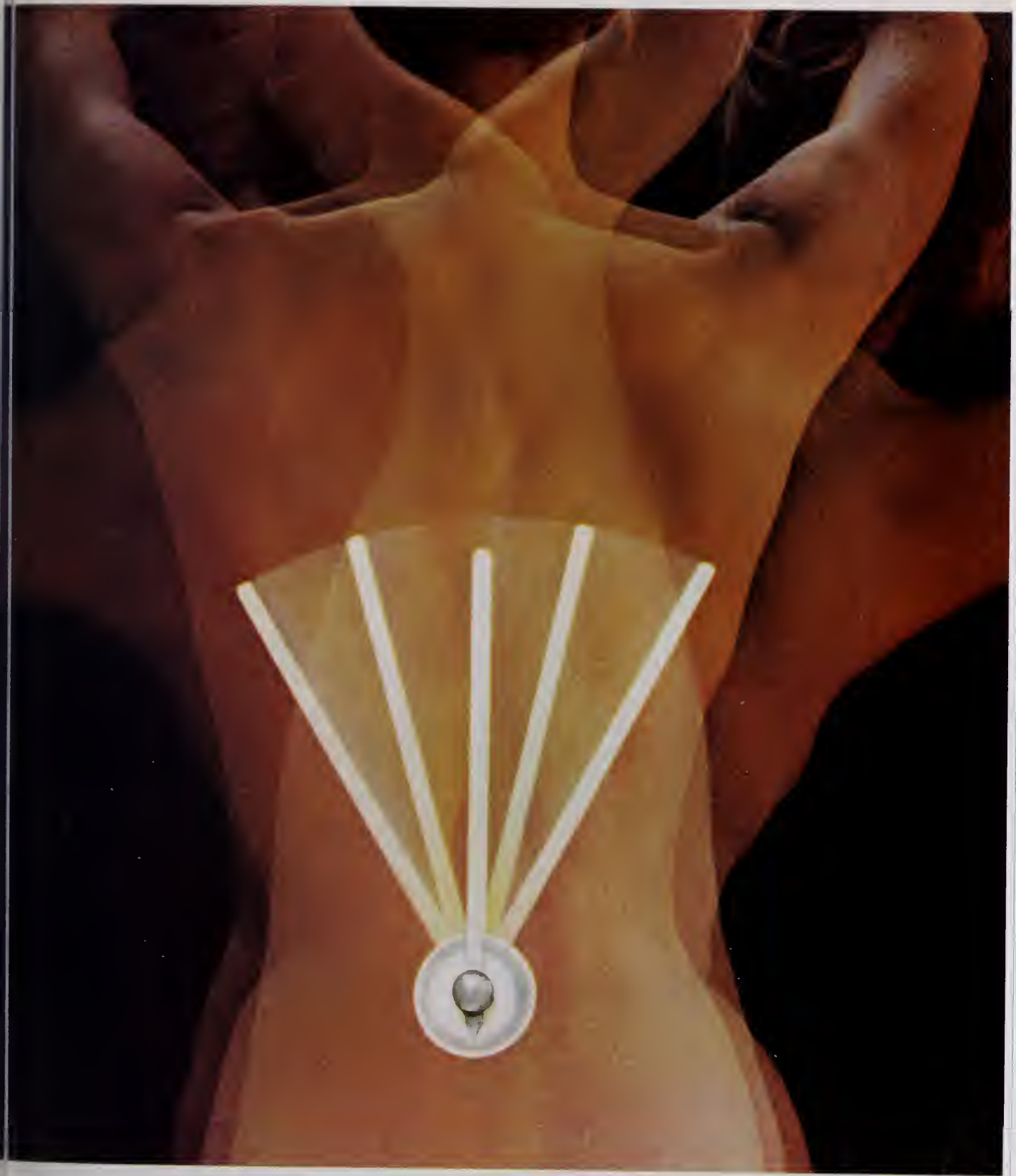
Hematologic: Leukopenia and pancytopenia (on carisoproc plus other drugs).
Usual Adult Dosage: One 350 mg tablet three times daily and at bedtime.
Overdosage: Has produced stupor, coma, shock, respiratory depression, and, very rarely, death. The effects of an overdose of carisoprodol and alcohol or other CNS depressants or psychotropic agents can be additive even when one of the dru has been taken in the usual recommended dosage. Empty stomach, treat symptomatically; cautiously give respiratory assistance, CNS stimulants, pressor agents as needed. Carisoprodol is metabolized in the liver and excreted by the kidney. Diuresis and dialysis have been used successfully with related drug meprobamate. Carefully monitor urinary output, avoid overhydration; observe for possible relapse due to incomplete gastric emptying and delayed absorption.

Before prescribing, consult package circular or latest PDR information.

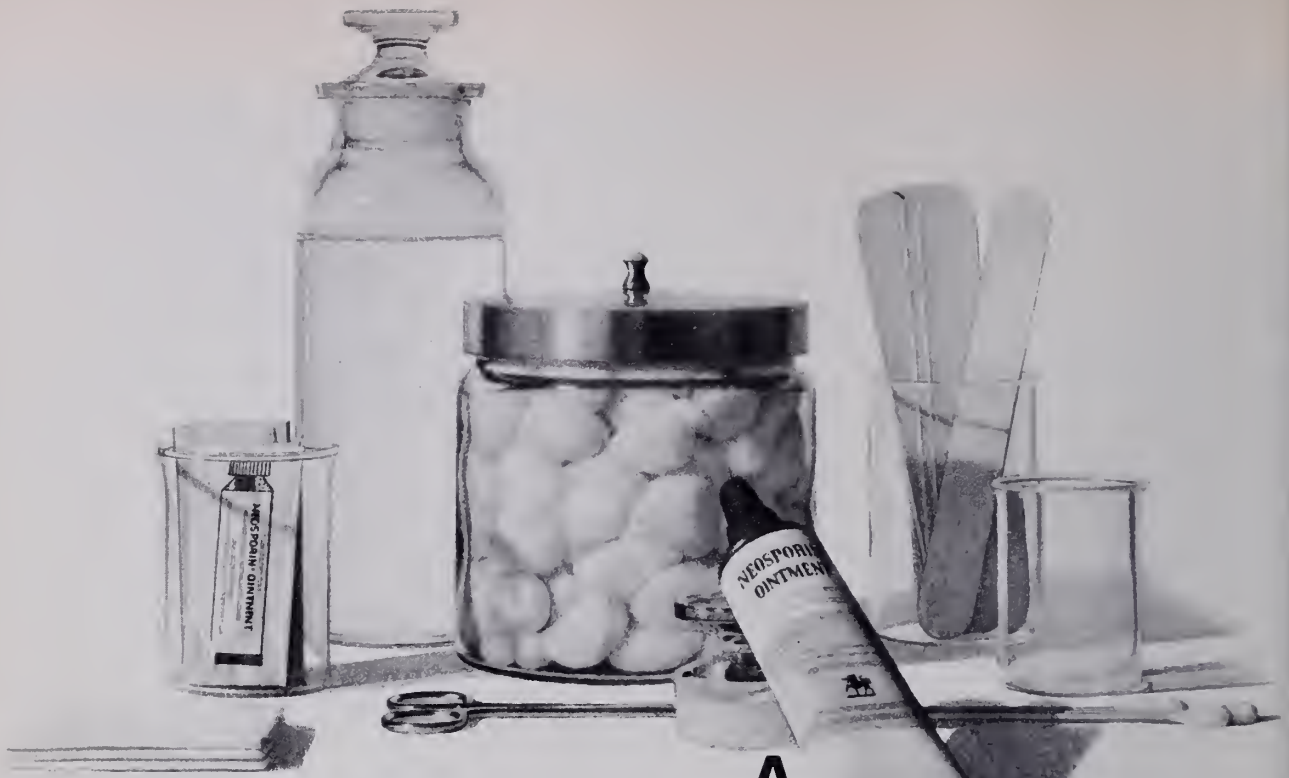
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(carisoprodol) 350 mg tablets



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A half-ounce of prevention

Use it to prevent a topical infection. Or to treat one that's already started. In either case, it's good medicine. Whether for lacerations, burns, open wounds, IV catheter or surgical aftercare. Neosporin® Ointment provides broad antibacterial coverage against common susceptible pathogens. And since it contains three antibiotics that are rarely used systemically, the risk of sensitization is reduced. Neosporin Ointment. A half-ounce of prevention. Also available in a full ounce of prevention and in convenient foil packets.

Neosporin Ointment carried on Apollo and Skylab missions.

Neosporin® Ointment
(polymyxin B-bacitracin-neomycin)

Each gram contains: Aerosporin® brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs.
In tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

INDICATIONS: *Therapeutically,* used as an adjunct to appropriate systemic therapy for topical infections, primary or secondary, due to susceptible organisms, as in: • infected burns, skin grafts, surgical incisions, otitis externa • primary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia) • secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis) • traumatic lesions, inflamed or suppurating as a result of bacterial infection.
Prophylactically, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing.

CONTRAINDICATIONS: Not for use in the eyes or external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent o body surface is affected, especially if the patient has impaired renal functi or is receiving other aminoglycoside antibiotics concurrently, not more tha one application a day is recommended.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropri measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of p allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept

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Editorial
COMMENT

Guest Editorial

Socialized Medicine—The Canadian Experience

By S. Morton Zweig, M.D.

EDITOR'S NOTE: *Dr. Zweig, a Canadian, has practiced in San Francisco as a nephrologist on the staff of the Presbyterian Hospital of the University of the Pacific Medical Center for the last year. Permission to reprint has been received from* The Internist, *a publication of the American Society of Internal Medicine. An article about the National Health Service dilemma in England will follow in the February issue of the Journal.*

With the growing clamor for a national health care plan, Americans would do well to examine how our northern neighbors have met the challenge. Overall, the recent Canadian experience with government-supported medical health care plans has generally proved very gratifying for both patient and physician. Operated as independent provincial programs, all supported federally, they vary somewhat from province to province, but provide in common comprehensive health care coverage at nominal cost to all residents regardless of personal income or means.

As originally conceived in Ontario, physicians were allowed to bill either the patient or the government. The patient paid the difference between the amount billed and the amount paid by the plan, which was usually 10 per cent of the fee recommended by the Ontario College of Physicians and Surgeons, the provincial medical licensing body. For example: Since the recommended fee for a consultation by an internist was $38.00, the cost to the patient was $3.80 and to the plan $34.20. For a monthly premium of approximately $20.00, a family of four could obtain total medical care, including unlimited physician visits and hospitalization, surgery, and major procedures such as dialysis—often at no extra cost, since in many cases physicians did not insist on that portion of the fee not covered by the plan.

Unfortunately, within two years of the inception of the plan, government health care costs had soared because of abuse of the plan by both patient and physician. Whereas patients had previously self-treated minor illnesses, they now sought medical help for insignificant complaints. Hospitalizations were prolonged. Physicians, assured of prompt (within six weeks) and almost unquestioned payment by the plan, billed for minor procedures, often represented as more major services at a higher fee, and for advice for which payment had not been sought previously. Not a few cases of downright fraud on the part of physicians were uncovered! And, of course, physician income increased. The average Ontario family practitioner netted about $32,000 yearly before the plan in 1968 and about $45,000 after the plan had been in operation only two years.

Naturally, the government imposed stronger regulations. At first physicians were restricted either to "belonging to the plan," in which case they had to accept the amount paid by the insurance program and could not bill the patient for any extra amount, or "not belonging to the plan," and billing the patient directly any desired amount, which the patient could in turn recover in part

from the plan. Interestingly enough, virtually all physicians opted to belong to the plan since this assured payment. Not surprisingly, physician income and government health care costs continued to soar.

To combat increasing costs further, the government, in agreement with the Ontario College of Physicians and Surgeons, has recently limited the number of patients for which a physician may submit claims in a given period of time. Although set at a generous level (a general practitioner may bill up to a maximum of $75,000 per year and specialists proportionately more), a ceiling has been imposed on physician income by the government. Again, no hue and cry has been raised by the medical profession. Another repercussion of spiraling government health care costs has been reduced government funding of other health care projects.

Nevertheless, the original intention of the plan, to provide comprehensive medical care to virtually the entire population at little cost to the individual subscriber, has been overwhelmingly successful. Physicians have also benefited with a surge in personal income, but at the cost of becoming government employees. Although apparent harmony now exists between the medical profession and the government, this symbiosis may be short-lived if the past trend of the government to curb increasing costs continues.

In the approaching, and probably inevitable, American experiment in nationalized medicine, the Canadian experience should not go unheeded. With the government willing to bear the brunt of the cost of a national health care plan, it is clear that the public and physician can both reap tremendous benefits. The patient must not, however, deluge the physician with insignificant problems. The physician must uphold the honorable traditions of his profession or face the inevitable risk of becoming a civil servant.

Is there a tablet containing *only* an expectorant and *only* Glyceryl Guaiacolate? YES!



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Composition: Each sugar-free compressed tablet contains glyceryl guaiacolate 100mg. **Action and Use:** This preperation utilizes the effective expectorant action of glyceryl guaiacolate which significantly stimulates the secretion of respiratory tract fluid. The increased flow of less viscid fluid favors expectoration and has a demulcent effect on the tracheobronchial mucosa. The primary usefulness of Hytuss Tabs is to promote the change from a dry, unproductive cough to a productive cough. Hytuss is therefore useful in treating coughs due to the common cold, bronchitis, laryngitis, tracheitis, pharyngitis, influenza and the measles. The expectorant action of Hytuss may also provide symptomatic relief in some chronic respiratory disorders when the patient experiences spasms of dry nonproductive coughing. **Precautions:** Extremely large amounts may cause nausea and vomiting. **Administration and Dosage:** *Adults*—1 tablet four times daily. *Children*—6 to 12 years of age; ½ tablet 3 or 4 times daily. HOW SUPPLIED: White, scored, sugar-free, tablet in bottles of 100 - 1,000 - 5,000. **Product Identification Mark:** Hy. **Literature Available:** On request.

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Remarks of
C. E. Robert Parker, M. D.
In Accepting
1974 DR. BENJAMIN RUSH BICENTENNIAL AWARD

"Dr. Todd, Dr. Palmer, Dr. Nesbitt, Members of the Board of Trustees, Members of the House of Delegates, staff of the American Medical Association, and ladies and gentlemen.

On behalf of my fellow physicians in Alabama and doctors everywhere, I accept this award with deepest gratitude and humility.

It hardly seems possible that 45 years have passed since I began the practice of medicine. It seems even less likely that my pathway should have led me, or would have ever led me, to this occasion of high honor which you have bestowed upon me today.

The Dr. Benjamin Rush Bicentennial Award is far more than sufficient for the services I have rendered.

In simple fact, it is not appropriate that I should be here today to receive your expressions of commendations. Rather, I have come here to render my own expressions of appreciation to all of those doctors, and teachers, and people everywhere who inspired me to enter into this exalted profession, who taught me that service to mankind is in itself its own reward.



Dr. Parker is shown presenting his acceptance speech before the members of the House of Delegates at the recent annual AMA Clinical Convention, Portland, Oregon.

From the bottom of my heart, and speaking for my family, I say thank you."

1975 AMA Clinical Convention Highlights

The AMA Clinical Convention, recently held in Portland, Oregon, reached decisions on many important issues which will have a wide-range effect in the months ahead. The most important decision concerned the $60 assessment on all regular members for fiscal year 1975, with exemptions to interns, residents, and medical students.

The AMA House of Delegates deferred action on a proposed increase in annual dues from $110 to $200 until the 1975 annual meeting in Atlantic City next June.

By the end of the convention, the organization had made crucial decisions in its efforts to thwart the villains of inflation, deficit spending, re-classification of assets and dwindling of liquid reserves which have forced it to close out its 1974 operations with the aid of a two million dollar bank loan.

In other actions, the House of Delegates:

(1) Gave the AMA Board of Trustees a vote of confidence for its efforts to reach a consensus between the private medical and insurance communities on providing national health insurance coverage through purchase of private health insurance. (In doing so, the House rejected three California resolutions to promote a nation-wide catastrophic health insurance program, a program for "uninsurables" and a program for the unemployed.

(2) Voted to restore at a cost of $370,000 selected cutbacks in AMA publications, councils and committees previously approved by the Board, and directed that a special committee of the House study the matter.

(3) Voted to reverse the Board decision to terminate advertising and directed that AMA continue a full, unrestricted advertising program until a full report on the advertising's profitability is made to the House at the next convention.

(4) Adopted a resolution calling on local PSRO's and similar agencies to accept a hospital accreditation by the Joint Commission on Accreditation of Hospitals (JCAH) as sufficient to warrant that the procedures are satisfactory, which would help to avoid duplication in evaluating hospital utilization review and medical audit procedures.

(5) Defined "family physician," in an attempt to eliminate confusion with the term "primary care physician." According to the AMA, a family physician is one who practices in the discipline of family practice and whose training and experience qualify him to practice in several fields of medicine and surgery with particular emphasis on the family unit. (The American Academy of Family Physicians and Dr. Kenneth Yohn, President of AAFP, state their agreement with this definition and emphasize that the family physician is a primary care physician, but he is not necessarily limited to primary care. He may also provide secondary health care.)

(6) Approved guidelines for contracts between House staff and hospitals—recognizing the right of House staff to bargain collectively. The guidelines do not give AMA sanction to the principles of collective bargaining and union-style contracts, but they do set up suggestive provisions and terms to be included in such contracts.

(7) Approved changes in the bylaws, which will revamp the structure of the Clinical Convention. These changes will accomplish a partial separation of the House of Delegates and the scientific meetings, and will allow regional scientific programming.

A full report of all action taken by the AMA House of Delegates appears in the December 9th issue of American Medical News.

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ORTHOPEDIC SURGEON: Large Southern Clinic requires 2nd Orthopedic Surgeon interested in traumatic orthopedics, hand surgery and back surgery. Board certified or qualified. Contact Dr. C. B. Thuss - 2124 4th Avenue, South - Birmingham, Alabama 35233 — (205-323-1661).



Making the formal announcement of the creation of a Department of Family Practice at the University of South Alabama, Mobile, are: (standing l to r) William T. Wright, M.D., President-elect, Alabama Academy of Family Physicians; H. C. Mullins, M.D., family physician, Fairhope; Jack Hyman, M.D., President, Mobile County Medical Society; William P. Coats, M.D., Chairman, Family Practice Department, Mobile General Hospital; and Arthur J. Donovan, M.D., Dean, College of Medicine and Head, Department of Surgery. (Seated l to r): Kenneth C. Yohn, M.D., President, Alabama Academy of Family Physicians and Dr. Frederick T. Whiddon, President, University of South Alabama.

Department of Family Practice Created At The University of South Alabama

Dr. Frederick P. Whiddon, President of the University of South Alabama and Dr. Kenneth Yohn, President of the Alabama Academy of Family Physicians, have announced the creation of a Department of Family Practice within the University's College of Medicine.

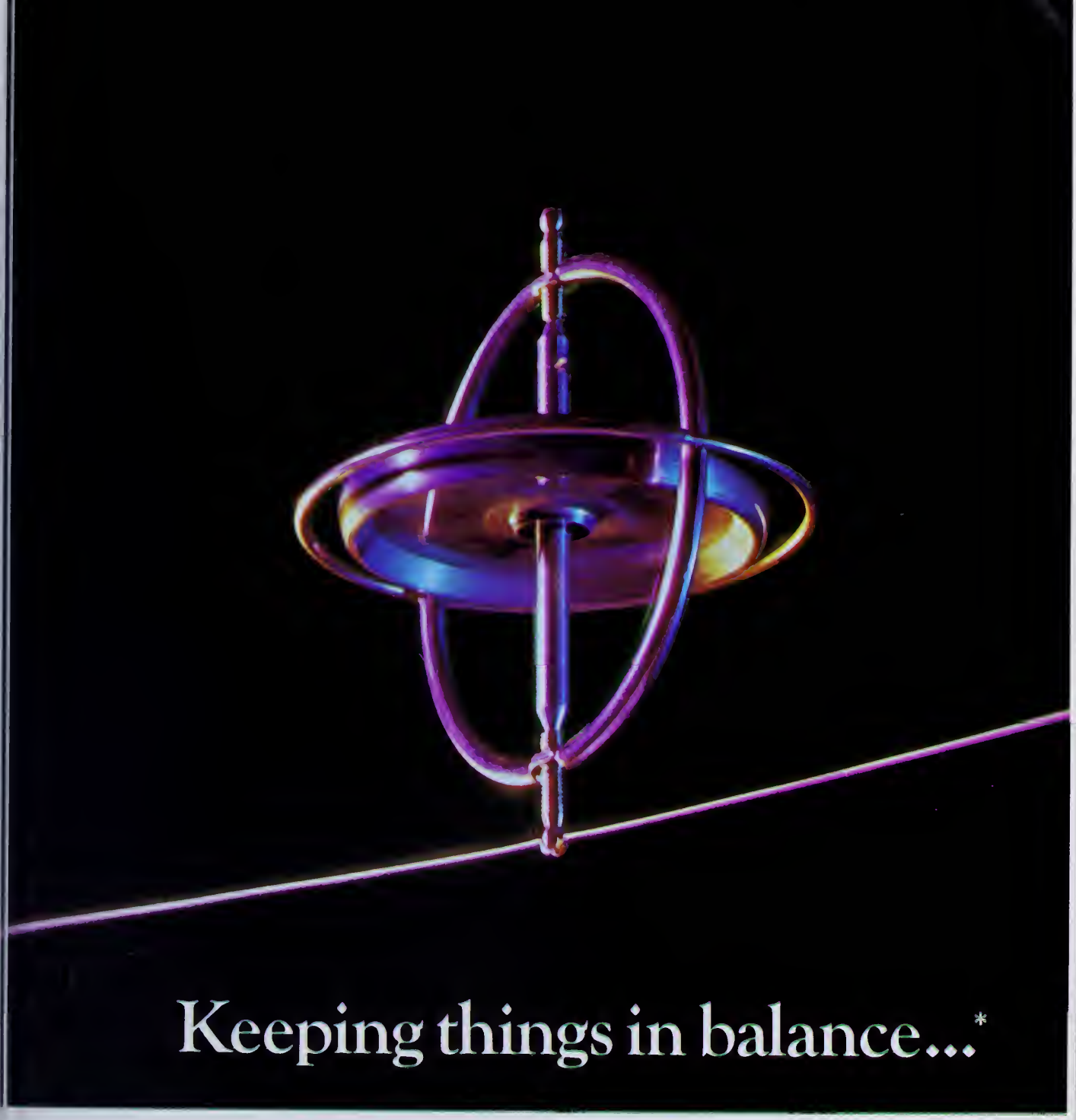
Approved by the school's Board of Trustees, the department represents the second decisive step the university has taken to encourage the training of more family practitioners. The trustees last year passed a resolution requiring that 25 per cent of incoming medical students be from rural counties, in an effort to return more doctors to those critical need areas.

"The Department of Family Practice," Dr. Whiddon said, "will receive all the administrative support it will require from the College of Medicine and the university administration to fulfill its mission." The university president also pointed out that the school is committed to an immediate activation of the facility and will provide an appropriate budget to support the new area of study.

According to Dr. Arthur J. Donovan, acting Dean of the College of Medicine, it is important that "medical students have experience in the field of family practice before they decide on the permanent activity."

The new department will be integrated into the college and have an equal voice in determining overall policy. It will be actively involved in planning future developments, as well as in deliberations on criteria for selecting students.

It will also participate with other clinical departments in the clinical portions of the curriculum during the first and second years. Clerkships will be required, as they are in the departments of internal medicine, pediatrics, psychiatry and surgery.



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*INDICATIONS. Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

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For more information, write:
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The Identification, Selection And Use Of Oral Contraceptives

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Introduction

The Department of Obstetrics and Gynecology of the University of Alabama in Birmingham and The Journal of the Medical Association of the State of Alabama are going to present a series of seven articles entitled, "Approaches in the Management of Obstetric and Gynecologic Problems."

These articles will be practical presentations of Obstetric and Gynecologic problems that are frequently seen by the generalist and specialist, as well as answers to specific questions regarding clinical obstetrics and gynecology.

The series will continue if there is sufficient interest in the articles. Readers are encouraged to send to the Journal any specific clinical questions which they would like answered, as well as to suggest topics for future articles.

The first article in this series deals with the very common and often perplexing problem of oral contraceptives. The February article will be by Dr. Max Austin, a member of the Division of Oncology. His article will be entitled, "The Management of the Abnormal Pap Smear."

Section I. Reference For Prescribing Oral Contraceptives And Determining Medications Previously Used By Patients.

COMPANY	NAME	CONTENTS (Progestin in mg.) (Estrogen in mcg.)		PILL COLOR & # IN PACK		SPECIAL MARKINGS
Ortho	Micronor	Norethindrone	0.35 mg.	Lime (Daily on 1st day of MP)	35	Clear plastic dialpak "Ortho" on one side of pill; "0.35" on one side
	Ortho-Novum 1/50	Norethindrone	1 mg.	Yellow	21	
	21 day	Mestranol	50 mcg.			Clear plastic dialpak "Ortho"on one side of
	28 day	Inert pills		Green	7	pill; "1" on one side
	Ortho Novum 1/80	Norethindrone	1 mg.	Lavender	21	Dialpack, "Ortho" on one
	21 day	Mestranol	80 mcg.			side of pill; "1" on one side of pill
	28 day	Inert pills		Green	7	
	Ortho-Novum SQ	Mestranol	80 mcg.	White	14	Dialpak
		Norethindrone	2 mg.	----Blue	6	"Ortho-SQ" on pill
		Mestranol	80 mcg.			
	Ortho-Novum 2 mg.	Norethindrone	2 mg.	White	20	Lavender Dialpak, "2"
		Mestranol	100 mcg.			on each side.
	Ortho-Novum 10 mg	Norethindrone	10 mg	White	20	Blue Dialpak, "10" on
		Mestranol	60 mcg.			each side

COMPANY	NAME	CONTENTS (Progestin in mg.) (Estrogen in mcg.)		PILL COLOR & # IN PACK		SPECIAL MARKINGS
Lederle	Zorane 1/20	Norethindrone Acetate Ethinyl Estradiol	1 mg. 20 mcg.	Pink White	21 7 (inert)	Pink round dispenser with butterfly (plastic)
	Zorane 1/50	Norethindrone Acetate Ethinyl Estradiol	1 mg. 50 mcg.	Lt. Green White	21 7	Green round dispenser with butterfly
	Zorane 1.5/30	Norethindrone Acetate Ethinyl Estradiol	1.5 mg. 30 mcg.	Blue White	21 7	Blue round dispenser with butterfly
Mead-Johnson	Oracon 21	Ethinyl Estradiol Ethinyl Estradiol Dimesthisterone	100 mcg. plus 25 mg.	White Pink (Day 17-21)	16 5	"M_j" on pills, scored, paper package
	Oracon 28	Ethinyl Estradiol Ethinyl Estradiol Dimesthisterone Inert pills	100 mcg. plus 25 mg.	White Pink (Day 17-22) Green	16 6 6	"M_j" on pills, scored, paper package
Parke-Davis	Loestrin 1/20	Norethindrone Acetate Ethinyl Estradiol Ferrous Fumarate	1mg. 20mcg. 75mg.	White Brown	21 7	Hard plastic, yellow-green with flowers Gold Foil
	Loestrin 1.5/30	Norethindrone Acetate Ethinyl Estradiol Ferrous Fumarate	1.5mg. 30mcg. 75mg.	Green Brown	21 7	Green, compact shape
	Norlutate 2.5mg.	Norethindrone Acetate	2.5mg.	Tan	21	Green, paper package, punch out
	Norlestrin /21/ 1mg.	Norethindrone Acetate Ethinyl Estradiol	1mg. 50mcg.	Yellow	21	Green, oblong pack, "P-D" on one side of pill; "904" on one side of pill
	OR, with /Fe/	Ferrous Fumarate	75mg.	Brown	7	Rectangle package
	Norlestrin /21/	Norethindrone Acetate Ethinyl Estradiol	2.5mg. 50mcg.	Pink	21	Pink oblong pack "P-D" on one side of pill "901" on one side of pill
	OR, with /Fe/	Ferrous Fumarate	75mg.	Brown	7	Large rectangle
	Norlestrin /28/ 1mg.	Norethindrone Acetate Ethinyl Estradiol Inert pill	1mg. 50mcg.	Yellow White	21 7	Beige oblong pack "P-D" on pill
Searle	Ovulen 21	Ethynodiol Diacetate Mestranol	1mg. 100mcg.	White	21	White compact, pentagon shape; "Searle" on one side of pill; "401" on one side of pill
	Ovulen 28	Ethynodiol Diacetate Mestranol Inert pills	1mg. 100mcg.	White Pink	21 7	White Compact®, pentagon shape, blue foil
	Demulen	Ethynodiol Diacetate Ethinyl Estradiol	1mg. 50mcg.	White	21	Yellow, Compact®, yellow foil, "Searle" on one side of pill; "71" on one side of pill
	Demulen 28	Ethynodiol Diacetate Ethinyl Estradiol Inert pills	1mg. 50mcg.	White Pink	21 7	Same as Demulen
Searle	Enovid 5mg.	Norethynodrel Mestranol	5mg. 75mcg.	Pink	20	Compack® Dispenser "5" on one side of pill; "Searle" on one side of pill
	Enovid 10mg.	Norethynodrel Mestranol	9.85mg. 150mcg.	Pink	20	Same as 5mg. except "10" on pill
	Enovid-E	Norethynodrel Mestranol	2.5mg. 100mcg.	Pale Pink	20	"E" on one side of pill; "Searle" on one side of pill

COMPANY	NAME	CONTENTS (Progestin in mg.) (Estrogen in mcg.)		PILL COLOR & # IN PACK		SPECIAL MARKINGS
Syntex	Nor-Q-D	Norethindrone	0.35mg.	Yellow (Daily)	42	Paper pack with woman's head in flowers, "Syntex" on pill, 42 pills
	Norquen	Norethindrone Mestranol Mestranol	2mg.) 80mcg.)	-----Blue (Day 16-21) White	6 14	"Syntex" on pill Foil roll of pills
	Norinyl 1+50 21 day OR, 28 day	Norethindrone Mestranol Inerts	1mg.) 50mcg.)	-----White Orange	21 7	"Syntex" on pill, Memorette®, pack with green color - cameo
	Norinyl 1+80 21 day OR, 28 day	Norethindrone Mestranol Inert pills	1mg.) 80mcg.)	-----Yellow Orange	21 7	"Syntex" on pill, Green-brown Memorette®, pack with cameo
Syntex	Norinyl 2mg.	Norethindrone Mestranol	2mg.) 100mcg)	-----White (large)	20	"Syntex" on pill, "2" on one side of pill; Memorette® pack, white with cameo
Wyeth	Ovral 21	Norgestrel Ethinyl Estradiol	0.5mg. 50mcg.	White	21	Soft plastic case with yellow butterfly, oblong pack, "W" on pills
	Ovral 28	Norgestrel Ethinyl Estradiol Inert pills	0.5mg.) 50mcg.)	-----White Pink	21 7	Soft plastic case with pink butterfly; "N" on pills
	Ovrette (28)	Norgestrel	.075mg.	Yellow (Daily)	28	Hard plastic case, blue

Section II. Facts That May Be Helpful In Prescribing Or Changing The Prescription Of Oral Contraceptives.

Potency of Progestins

1. Norgestrel
2. Ethynodiol Diacetate
3. Norethindrone Acetate
4. Norethindrone
5. Norethynodrel

Potency of Estrogens

1. All Sequentials
2. 100 mcg. Mestranol
3. 80 mcg. Mestranol=50 mcg. Ethinyl Estradiol
4. 59 mcg. Mestranol
5. 30 mcg. Ethinyl Estradiol
6. 20 mcg. Ethinyl Estradiol

Signs and Symptoms which may indicate excessive or deficient Estrogen or Progestin activity:

Estrogen Excess

Nausea, vomiting
Micorrhea
Fibroid growth
Cervical extrophy
Hypertension
Chloasma
Breast tenderness without increased size

Progestin Excess

Appetite increase
Weight gain—non cyclic
Tiredness—fatigue
Breast tenderness with increased size
Reduced libido
Depression
Hirsutism, acne, oily scalp
Moniliasis
Dilated veins
Absent or minimal menses (oligo or amenorrhea)

Estrogen Deficiency

Early spotting and bleeding (Days 1-14)
Vasomotor complaints

Progestin Deficiency

Late spotting and bleeding (Day 15-21)
Heavy flow and clots (hypermenorrhea)
Menstrual cramps (dysmenorrhea)
Delayed withdrawal bleeding

Section III. Questions And Answers Concerning The Use Of Oral Contraceptives.

Question: What are the contraindications for the use of oral contraceptives?

Answer: Migraine headaches. Patients who have migraine headaches have a higher incidence of cerebral thrombosis and vascular accidents while on oral contraceptives than the population at large. This is probably related to the fact that people with migraine headaches have increased venous dilatation, which can be potentiated by both estrogen and progestin.

Epilepsy. Epilepsy is contraindication to oral contraceptives. The medications can increase sodium retention and cerebral edema. The latter can cause an increase in the number of seizures patients have despite maintenance medication.

A positive family history. A family history should be obtained before placing a patient on an oral contraceptive; we are a product of our inheritance; thus, a strong family history of the early development of strokes, myocardial infarction, diabetes or hypertension at an early age should preclude oral contraceptive therapy.

Questionable fertility. Young women who have scant, irregular, infrequent periods and multiple episodes of dysfunctional bleeding are probably poor ovulators with a limited reproductive capacity. This should be explained to them and oral contraceptives should be used with caution. This applies to sequentials, as well as combination products.

Hepatic disease. Patients with severe liver disease or a history of idiopathic jaundice during pregnancy should not receive oral contraceptives; biliary sclerosis may be enhanced. There is no evidence that oral contraceptives damage the normal liver; they may, therefore, be given to patients who have clinical and laboratory evidence of healed hepatitis.

Renal disease and hypertension. A previous history of glomerulonephritis, pyelonephritis or the presence of hypertension are not absolute contraindications to oral contraceptives; but such a history indicates that these drugs should be used with caution and with careful surveillance of the patient.

Thrombophlebitis. FDA regulations specifically warn about the use of oral contraceptives in patients with a previous history of thrombophlebitis. I feel a strong family history of thrombophlebitis should preclude the use of these agents; however, the risk of death from a pregnancy is five times greater than a death from thrombophlebitis while taking the pill. Patients who have prosthetic cardiac valves should probably not be given oral contraceptives. Diaphragm and jelly is the best method of contraception for these women. If patients with previous thrombophlebitis which developed *when the patient was not on a contraceptive* insist upon using oral contraceptives, a release form should be obtained which indicates that the dangers and risks of oral contraceptives have been explained to the patient.

Emotional instability. Patients who are chronically depressed, emotionally unstable and have problems with air swallowing, insomnia, spastic colon, etc., are poor candidates for oral contraceptives. They will have numerous complaints and a high incidence of irregular spotting and bleeding. For the sanity of you and your nurse, oral contraceptives should be avoided in these patients.

Question: How would you choose an oral contraceptive that is best suited for a particular patient and how would you change an oral contraceptive if annoying symptoms develop?

Answer: This concept of therapy is based upon the information which is obtained from a carefully taken gynecological and obstetrical history and the effects of estrogen and progestin upon various organ systems. One should keep in mind the material on the

effects of estrogen and progestin on the organs and organ systems.

First think about a young teenager. The patient is 17 years of age. She is small, diminutive and weighs only 100 pounds. She has a normal menstrual history, has never been pregnant and has the habitus of a healthy adolescent. The dosage of oral contraceptives should, to some extent, be based upon kilo body weight and it is for this reason one would not give this young girl a large amount of estrogen. The ovaries are producing adequate estrogen during this period in life and teenagers are overly sensitive to nausea and vomiting. It would be preferable to prescribe a medication which had 20 to 50 micrograms of ethinyl estradiol and a small amount of progestin. Loestrin, Zorane, Ortho Novum 1+50, Norlestrin, Norinyl 1+50 or Demulen would be reasonable approaches to this particular teenager. However, if this young woman were of the same age, weighed approximately 125 pounds and had evidence of acne and the skin was oily, Enovid-E would be preferable. It is advisable to have sufficient estrogen to overcome androgenic substances produced by her ovary. Thus, one would avoid the more androgenic progestins such as Norethindrone and Norethindrone Acetate or Ovral.

Another typical problem for oral contraceptive selection is the 30-year old woman with three children who has excessive and prolonged menstruation and menstrual cramps. The excessive bleeding is secondary to an inadequate corpus luteum, a reduction in the amount of lytic material within the endometrium to cause its regression and her inability to develop a very rapid rise in estrogen to cause healing of the endometrium soon after the onset of menses. Ovral or Ovulen is an excellent choice for this patient, since ethynodiol diacetate and norgestrel are potent progestins and will cause regression of the endometrium, reduction in its vascularity and will compete with estrogen at binding sites so that the endometrium becomes low and regressed. After two months of therapy, this patient will cease to have cramps or heavy menstruation. The failure of Ovral and Ovulen to correct these symptoms should make a physician immediately think of adenomyosis, endometrial polyps, or submucous myomata. The classic symptom of adenomyosis is the failure of an oral contraceptive to cause the cessation of excessive cramps and menstruation in a woman in the third and fourth decade.

Question: What type of oral contraceptive should be prescribed for a young girl in her late teens who has oligomenorrhea and prolonged periods of amenorrhea?

Answer: This young girl is a candidate for Stein-Leventhal syndrome, endometrial hyperplasia and infertility. One should be particularly concerned about her future fertility. The patient should understand that she should not delay her child bearing any longer than is absolutely necessary. Theoretically, one must be concerned that the suppression of FSH and LH could cause prolonged periods of amenorrhea upon cessation of the medication. Thus, there is a dilemma. One can prevent episodes of prolonged menstruation and endometrial hyperplasia by giving the oral contraceptives. On the other hand, the use of any oral contraceptive is going to be associated with dysrhythmia of FSH and LH. The estrogens, mestranol and ethinyl estradiol have the greatest suppressive effect upon the gonadotrophins; thus, sequential therapy is contraindicated in these patients. One should discuss the gynecologic problems that are involved, encourage her to begin her child bearing reasonably soon and advise against the use of oral contraceptives.

Question: How long do you think a person should be allowed to take oral contraceptives and second, do you think that at periodic intervals, the oral contraceptives should be suppressed for one or two months?

Answer: Oral contraceptives can be taken to space children; therefore, they may be taken until one desires a pregnancy, if there are no untoward effects with their use. Only then is the medication discontinued. The oral contraceptive is resumed during the second week postpartum and continued until

another pregnancy is desired. This philosophy is based upon the concept that our ancestors did not menstruate more than 50 to 60 times in their entire lives. They were either pregnant or lactating; thus, the body is programmed for long periods of ovulation suppression.

Regular menstruation is relatively new among human beings, since prior to adequate contraception, pregnancies were frequent. Thus, oral contraceptives should not be stopped every one or two years to reduce gonadotrophin suppression. Those patients have been accustomed to the use of oral contraceptives and are not sufficiently motivated to use other contraceptive techniques, have too many unplanned, unwanted pregnancies when the oral contraceptives are discontinued.

Question: What is an explanation of breakthrough bleeding and how is it managed?

Answer: Breakthrough bleeding is secondary to inadequate estrogenic support of the endometrium and premature aging of the endometrial cells and vessels. The progestin competes with estrogen at various binding sites; therefore, the endometrium of patients on combination oral contraceptives is low, regressed and there is reduced vascularity. If this is excessive, then the integrity of the surface of the endometrium will be lost and bleeding will occur. Thus, the estrogenic content of the pill should be increased. One should never advise patients to double the dosage of a pill they are taking. This adds excessive progestin which further interferes with estrogen binding sites. The use of sequential contraceptives can be used in bothersome breakthrough bleeding. However, the sequentials do not have the favorable effect upon menstruation; i.e. reduction in menstrual cramps and reduced amount and duration of the menses. In general, Enovid-E which is a highly estrogenic oral contraceptive and does not have anti-estrogenic properties is a satisfactory drug for patients with difficult irregular bleeding.

Question: How often should patients on oral contraceptives be seen?

Answer: Patients should be seen within one and three months after the initiation of therapy. They may then be seen at six months intervals. These visits give the physician the opportunity of determining the satisfactory and unsatisfactory symptoms which are associated with oral contraceptives, as well as any evidence of hypertension, headaches, hepatic dysfunction, symptoms of depression or changes in the breast.

Question: How do you manage a patient who tells you that she has reduced libido since beginning oral contraceptive therapy?

Answer: Libido is a highly subjective symptom that is dependent upon many factors in a person's life. It is important, therefore, to discuss with the patient some of the personal factors which are associated with her symptoms. For instance, are she and her husband having marital problems? Are there financial difficulties? Is the patient under strain in the office, or having particular personal problems with friends, in-laws, etc.? Is there a feeling of guilt concerning the use of oral contraceptives? By explaining to the patient the many facets of this symptom, one can have a better idea as to whether it is related to the oral contraceptives or to her personal factors. Symptoms of depression and libido, if they are due to oral contraceptives, are generally related to excessive progestin effect upon the central nervous system. If it is decided to continue oral contraceptives, sequentials or Enovid-E would be the choice.

Question: What is the appropriate management of a patient who has had amenorrhea for two months upon the discontinuance of her medication?

Answer: A pregnancy test should be obtained. If this is negative, the patient can be reassured that this is one of the "bonus" features of oral contraceptives. The endometrium is regressed and reduced in vascularity and, therefore, its integrity is not threatened by the falling hormones. A simple illustration is often helpful. "If in the summertime you do not water or fertilize the lawn, it is not necessary to cut it frequently."

Question: What medication is most appropriate for patients who are in the perimenopausal years?

Answer: Patients who are having menstrual dysfunction, manifested by excessive menstruation or cramps, a medication high in progestin is beneficial. This might be Ovulen or Ovral. If on the other hand, they are having scant menses prior to the initiation of oral contraceptives, this would indicate that they are producing relatively small amounts of endogenous estrogen and the sequential contraceptives would be advantageous to these women. However, to the average perimenopausal patient who is having some menstrual symptoms, sequentials would not be satisfactory; Enovid-E with its high estrogenic activity would be the best choice. These patients should have their endometrium evaluated at least once a year by endometrial biopsy or jet washing, etc. Endometrial carcinoma has developed in several women who took sequentials for prolonged periods of time.

Question: What is the microdose pill?

Answer: The microdose agent which is presently available is 0.35 milograms of norethindrone and 0.75 norgestrel. When these medications are given constantly, they do not necessarily interfere with ovulation, but they do reduce the levels of both estrogen and progestin, and they have a profound effect upon the synthesis of protein and glycogen within the cell and cause the cell to constantly have some progestational effects. This apparently interferes with uterine implantation as well as the electrolyte content within the cervical mucous. "Every sword has two edges;" thus, the favorable aspect of the microdose pill is the theoretical reduction of thrombophlebitis in users as well as the various symptoms which are associated with excessive estrogen. The other side of the sword, however, is the bothersome breakthrough bleeding and early menstruation that is associated with this medication. These medications may be used when there are excessive symptoms from the estrogen content of the pill.

Question: When should oral contraceptives be terminated?

Answer: It is obvious from the material which has been presented that when a patient develops authentic migraine type headaches, the oral contraceptive should be discontinued. This does not apply, however, to patients who develop tension type headaches. The development of diplopia or any other cranial neurologic sign indicates the necessity for a complete neurological evaluation and the discontinuance of the oral contraceptives.

The development of nausea after the first two months, air swallowing and excessive weight gain generally indicate an emotional decompensation. The pill should be discontinued until an adequate medical and psychological evaluation has been made.

Changes in libido present a thoughtful challenge. Libido is as much a part of security, happiness, ego, unselfishness, and appreciation as it is pure sex drive. Each person has an unpredictable reaction to each hormone. It is rare for any two individuals to respond to any of the steroids in precisely the same way. There is insufficient knowledge concerning libido and depression and the various steroids that influence central nervous system function. Thus, when there is some evidence that the libido is being influenced by oral contraceptives, it is best to discontinue the pill and attempt to work out the problems without the contraceptive steroid being in the equation.

Chloasma indicates the discontinuance or at least major alteration in contraceptive therapy. Chloasma is a greater problem in the South than in the North because of the increased amount of ultraviolet radiation; but it is also related to the genetic ability to lay down melanin and the estrogenic content of the pill. If the patient has chloasma and is willing to take the cosmetic risk, I will prescribe Loestrin. However, this contraceptive has two edges to its sword. Since it only contains 20 micrograms of estrogen, it should have a favorable effect upon the

amount of chloasma; but the small amount of estrogen may be associated with increased breakthrough bleeding among some patients.

Patients who develop real or imaginary concern about hirsutism while on oral contraceptives deserve a very frank discussion of the problem. Hirsutism is related to a familial tendency of the hair follicle to respond to androgen. Thus, one should avoid or discontinue the more androgenic preparations like norethindrone and its related compounds. The drugs of choice are sequentials or Enovid-E if patients have only minor hirsutism and desire to continue oral contraceptive therapy.

The development of jaundice or hepatitis dictates the discontinuance of oral contraceptives until the problem is completely resolved and an hepatic evaluation indicates a complete recovery.

The development of edema of the face and hands generally indicates a reduction in glomerular filtration and/or inability of the patient to maintain proper balance of sodium, renin substrate, angiotensin, and aldosterone. This indicates the discontinuance of the pill and use of some other method of contraception.

The development of thrombophlebitis or unilateral edema of the left leg and ankle absolutely indicates the discontinuance of oral contraceptives and precludes their future use. The left iliac vein takes a more circuitous route than the right; unilateral edema indicates fluid retention from venous obstruction and a serious risk of thrombosis.

The development of hypertension during pill therapy requires thoughtful evaluation. The contraceptive must be discontinued until it is determined if hypertension is pill related or is due to renal damage or essential hypertension. I have found the development of significant hypertension while on oral contraceptives to be a rare complication. It is, however, a complication that is important and indicates the necessity of periodic evaluation of patients who are on oral contraceptive therapy.

The development of irregular bleeding, cramps, and uterine enlargement in a patient who is 30 or more years old and has successfully used oral contraceptives for a number of years generally indicates the development of adenomyosis. This is treated by hysterectomy.

Finally and most important, I do not believe in stopping the pill at periodic intervals in patients who are having no contraceptive problems; too many unplanned and unfortunate pregnancies occur during this interval.

If we examine menstruation from a teleological point of view, it is evident that it was a rare occurrence among women until 500 years ago; it still is in primitive societies where women will ovulate only 50 to 60 times in their entire life. The human female was programmed to be pregnant or lactating during the majority of her reproductive years. Thus, suppression of the hypothalamic ovarian endometrial axis is a natural occurrence. Therefore, patients who are taking the pill without the side effects of complications that have been discussed can continue the oral contraceptives until they desire to become pregnant. Following the pregnancy, the pill may be used until another pregnancy is desired. I feel that physicians are fortunate that we are able to participate in the women's liberation movement by assisting them from being "pregnant and barefooted all of the time."

Question: What effects do oral contraceptives have on the breast?

Answer: This is possibly best answered by quoting an article from *British Medical Journal,* September, 1972: "Between the 1st of December 1968 and the 31st of December 1971, 345 women age 16 to 39 years with a lump in the breast, 90 malignant and 255 benign were interviewed at five London teaching hospitals, together with 347 matched controls suffering from acute medical or surgical conditions, who were admitted to the hospital for routine elective surgery. Questions were asked about each patient's medical, obstetric, contraceptive and social histories. The data do not suggest that the use of oral

contraceptives is related in any way to the risk of breast cancer, but provide some evidence that the preparations may actually protect against benign breast disease. This protective effect is largely confined to women who continue to use oral contraceptives and have used them all together for more than two years. Such women seem to have about 25 per cent as great a risk of being admitted to the hospital for breast biopsy as women who have never used oral contraceptives."

Evaluation of the Bag-Co2-Generating-Tablet

Method for Isolation of Neisseria Gonorrhoeae

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EDITOR'S NOTE: *Reprinted from* American Journal of Clinical Pathology, *Vol. 62, No. 4, October, 1974, with permission from Dr. Holston. Address reprint requests to James L. Holston, Jr., Dr. P. H., Assistant Director, Clinical Laboratory Administration, Alabama Department of Public Health, Montgomery, Alabama 36104.*

Abstract

Holston, J. L., Jr., Hosty, T. S., and Martin, J. E., Jr.: Evaluation of the bag-CO_2-generating-tablet method for isolation of *Neisseria gonorrhoeae*. Am. J. Clin. Pathol. 62: 558-562, 1974. A bag-CO_2-generating-tablet method (Gono-Pak) for the isolation of *Neisseria gonorrhoeae* was compared with the candle-jar extinction method. Simultaneous comparisons were made in three separate patient populations. The Gono-Pak method was found as effective as the candle-jar method for the detection of *N. gonorrhoeae*. The Gono-Pak however, offered several advantages over the candle-jar method, such as: simpler and appealing professionally; greater facility of transportation to the laboratory; smaller requirement of incubator space; less handling needed. (Key words: Gonococcus isolation; Gonococcus transportation system; *Neisseria gonorrhoeae*.)

A new system for the cultivation of *Neisseria Gonorrhoeae* has been reported by Martin and associates.[1] This system, called "Gono-Pak," employs a modified Thayer-Martin selective medium inserted into a plastic bag containing a CO_2-generating tablet. The first extensive field trials employing the Gono-Pak, conducted in the gonococcus-culturing program of the Alabama Public Health Laboratory, are described. Results of a simultaneous comparison with the candle-jar extinction method are reported. The feasibility of using the system in screening large populations of asyptomatic men and women is discussed. Last, the effect of transit time on the yield of presumptive gonococci is presented.

Materials and Methods

Study Populations

Simultaneous comparisons of the Gono-Pak and the candle-jar method were made for three separate patient populations. Endocervical specimens were obtained from 1,297 women seen consecutively in venereal disease clinics and from 317 women examined by private physicians. Two hundred urethral and 154 rectal specimens were obtained from men during a screening project carried out in a prison population.

The effect of transit time on the yield of *N. gonorrhoeae* from endocervical specimens was assessed in an additional 530 women seen in venereal disease clinics.

The feasibility of using the Gono-Pak system was demonstrated with specimens from three other patient populations: urethral specimens from 1,243 male prisoners, endocervical specimens from 5,175 women routinely screened by the county health depart-

ments, and 1,755 female military dependents. The latter were examined when they participated in multi-phasic screening during a well publicized "Health Week" and not because of any concern about genitourinary disease.

Laboratory Procedure

Modified Thayer-Martin (MTM) selective medium was prepared in our laboratory as previously described.[1] Each lot of medium met the specifications of the quality control procedures outlined by the Center for Disease Control.[3] The carbon-dioxide-generating tablets, composed of citric acid and sodium bicarbonate, were supplied by the Ames Company, Division of Miles Laboratories, Inc., Elkhart, Indiana. The .003-inch-thick, 18-ounce "Whirl Pack"* bags were produced by the Nasco Company, Atkinson, Wisconsin.[1] Candle jars were handled according to normal procedures.

Simultaneous Comparisons

In these comparisons, every specimen was obtained on a single sterile cotton swab, and two plates were inoculated. Endocervical specimens were alternately inoculated on a weekly basis so that the plate of first inoculation was in the candle jar one week and in the bag system the next. The plate of first inoculation with urethral specimens was alternated from patient to patient.

Incubation and Identification

Plates were placed in either the jar or the Gono-Pak within 1 hour of inoculation. All plates were incubated at 35-37 C. for 36-48 hours. After incubation, each plate was examined for *N. gonorrhoeae*. Presumptive identification of *N. gonorrhoeae* was based on colonial morphology, Gram stains, and oxidase tests. During the study, cultures were randomly selected and confirmed by direct flourescent antibody tests.[2] The conjugate used was from Difco (Lot No. 583974), Detroit, Michigan.

Effect of Transit Time

Five hundred and thirty endocervical specimens, handled as described above, were incubated at 35-37 C. for 36-48 hours. After incubation, plates from the candle jar were removed and examined in the branch laboratory. Plates in the Gono-Pak were not removed from the plastic bag but were mailed directly to the central laboratory. *N. gonorrhoeae* was identified in the branch laboratory immediately after incubation and in the central laboratory upon receipt.

Feasibility Studies

When the reliability of the Gono-Pak was verified, specimens were cultured on single plates to ascertain the feasibility of using the system.

Table 1. Comparison of Modified Thayer-Martin Medium in the Candle-jar Extinction Method with Thayer-Martin Medium in the Bag–CO_2-tablet Method

	Women from V.D. Clinic	Women from Private Physicians	Asymptomatic Men		Total
			Urethral	Rectal	
Results					
Number tested	1297	317	200	154	1968
Total positive (either method)	180	6	4	0	190
% positive (either method)	13.9	1.9	2.0	0.0	9.7
Distribution of Positives					
Total positive (either method)	180	6	4	0	190
Number positive by jar	174	6	4	0	184
Number positive by bag	175	5	4	0	184
% of total positives					
Jar	96.7	100.0	100.0	—	96.8
Bag	97.2	83.3	100.0	—	96.8

Table 2. Mailed 36–48-hour Incubated *N. gonorrhoeae* Cultures: Effect of Transit Time on Oxidase Reaction and Gram Stain

Transit Time (Days)	Number Positives Mailed	Central Laboratory Results: Oxidase + Gram-negative diplococci		Central Laboratory Results: Oxidase + Gram Stain Not Readable	
		Number	%	Number	%
1	36	36	100.0	0	0.0
2	45	30	66.7	15	33.3
3	6	1	16.7	5	83.3
TOTAL	87	67	77.0	20	23.0

Results

Results of the simultaneous comparison of modified Thayer-Martin medium in the candle jar with modified Thayer-Martin medium in the Gono-Pak are shown in Table 1. One hundred and eighty cultures were found positive for *N. gonorrhoeae* by either method on endocervical specimens obtained from venereal disease clinic patients. By the jar method alone, 174 (96.7%) positives were detected, and by the Gono-Pak alone, 175 (97.2%) positives were detected. Six positives were found by either method on endocervical specimens collected by private physicians. In this population, 6 (100%) positives were found with the jar, but only 5 (83%) were found with the Gono-Pak. The candle jar and Gono-Pak produced equivalent results on rectal and urethral specimens collected from asymptomatic men.

Increasing the length of transit time had an adverse effect on the Gram stain but did not appear to affect the oxidase reaction adversely (Table 2). Problems were not encountered with reading either the Gram stain or the oxidase reaction on cultures that were in transit 1 day. However, due to autolysis, the Gram stain could not be read on 15 (33.3%) of 45 cultures in transit 2 days or on 5 (83.3%) of 6 cultures in transit 3 days.

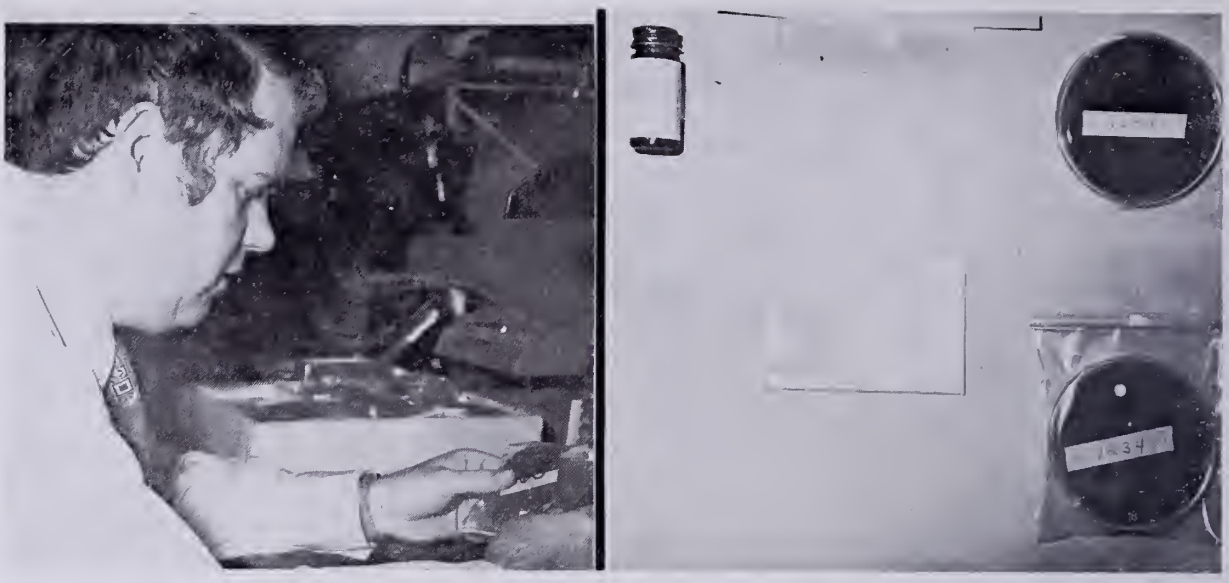
The results obtained from screening large populations for *N. gonorrhoeae* by using the Gono-Pak method are shown in Table 3. Twelve Hundred and forty-three asymptomatic male prisoners were examined in 4 days, and 21 (1.68%) were positive. However, of the 1,755 asymptomatic female military dependents screened in 5 days, only 4 (.23%) were positive. Thus far, (15 days), 336 (6.49%) positives have been detected among 5,175 women seen in county health department clinics.

Discussion

The results of this study show that the plastic bag-Co_2-tablet method is as effective as the candle-jar method for the detection of *N. gonorrhoeae*. In the simultaneous comparison of cultures submitted by private physicians, one more positive was found with the candle-jar method than with the Gono-Pak. This positive culture was on the plate of first inoculation and contained only two small colonies. It would seem, therefore, that this discrepancy was the result of a small

Table 3. Use of the Bag–CO_2-tablet (Gono-Pak) Method for Detection of *N. gonorrhoeae* in Large Populations

Population	Number of Patients	Days Collected	Number Positive	% Positive
Asymptomatic male prisoners	1,243	4	21	1.68
Asymptomatic female military dependents	1,755	5	4	.23
Female county health department patients	5,175	15	336	6.49



Left: Dr. J. L. Holston, Jr., examines a GC culture. Right: Gono-Pak includes, the Thayer-Martin plate, the CO_2 tablet and the "Whirl-Pak" bags.

inoculum and not of a failure of the system. The number of positives detected in this part of the study is too small for any firm conclusions to be drawn.

The Gono-Pak method offers several advantages over the candle-jar method for isolating and transporting *N. gonorrhoeae.* Some of these advantages are: more simplicity and professional appeal, greater facility of transportation to the laboratory, less incubator space required, and less handling needed.

Many physicians object to the candle jar because of its unprofessional appearance and do not want it conspicuously displayed in the office. Their nurses do not like the jar because they have to light the candle each time a culture is placed in it, and this practice often results in a burned hand or finger. Consequently, it is not unusual for a laboratory to receive a jar in which the candle has never been lit. The Gono-Pak system is composed of separate components which are easily stored and readily assembled. Thus, storage and handling problems are virtually eliminated.

The very nature of the candle jar makes it cumbersome and difficult to transport. This problem is compounded when only one or two cultures are collected and long distances are involved. In contrast, any number of cultures can be sent to the laboratory in Gono-Paks. They can be transported through the mail as easily as "Transgrow" and, in addition, their use eliminates some of the problems associated with Transgrow, that is, loss of CO_2 and collection of moisture on the bottle, which makes reading difficult, but mailing of cultures, even with the Gono-Pak, has its limitations. As shown in this study, a short transit time is an important factor in the recovery of the gonococcus. Cultures should reach the laboratory within 24-36 hours after a 48-hour incubation.

The latest emphasis on gonorrhoea screening has placed an acute strain on laboratories to provide adequate incubator space. This problem has been compounded by the candle jar, which requires, when full, approximately twice as much space as the same number of cultures in the Gono-Pak. The Gono-Pak can be easily stacked in the incubator and does not require consolidation when one or two cultures are submitted. These advantages are quite important in a public health laboratory, where large numbers of cultures are processed daily.

Since each culture is handled individually, the Gono-Pak is easily adapted to laboratory routine. Furthermore, the possibility of laboratory error is reduced, especially in laboratories with large screening programs.

Methods that often work well in a clinical or hospital environment do not necessarily meet the requirements of a public health laboratory. The public health laboratory is unique in that consideration must be given to the collection of large numbers of specimens, often over a short period of time (e.g., surveys); transportation to a laboratory which may be located some distance from the collection point; and the need for minimal handling by laboratory personnel. The dynamic qualities of the plastic bag-CO_2-tablet method graphically illustrate that this system can fulfill these requirements and can be used in a clinical, hospital, or public health laboratory.

Acknowledgments. Mrs. Mary Alice Freear, Mrs. Christine Baker, Mr. Oscar Jones, and Mr. John Hill provided technical assistance.

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* Use of trade names is for identification only and does not constitute endorsement by the Public Health Service or by the U. S. Department of Health, Education, and Welfare.

Bag-Tablet System For The Isolation of N. gonorrhoeae

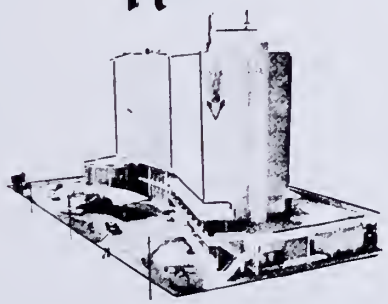
1. Tear off the top of the bag.
2. Drop one tablet in the bag.
3. Place streaked Thayer-Martin plate in bag and roll the top over several times in order to make the bag air tight.
4. Fold in the wire strips to hold the rolled top of the bag securely closed.
5. Streaked plates must be placed in a bag containing a CO_2 tablet within 1 hour after collection.
6. The bag containing the GC culture must be placed in an incubator within 6 hours after collection.
7. Incubate at 35-37° C for 48 hours.

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MEDICO - LEGAL DIALOG

SUMMARY OF THE NATIONAL HEALTH PLANNING AND DEVELOPMENT AND HEALTH FACILITIES ASSISTANCE ACT OF 1974 AS PASSED BY THE SENATE NOVEMBER 25, 1974

This Act amends the Public Health Service Act by adding a new Title XIV containing four parts.

PART A. National Guidelines for Health Planning

The Secretary of HEW would issue guidelines concerning national health planning policy and revise them as he deems appropriate. The guidelines would include standards of supply, distribution and organization of health resources and a statement of national health planning goals expressed in quantitative terms with consideration of congressionally determined priorities. Guidelines would be developed in consultation with local and state health planning agencies, statewide health coordinating councils and the National Advisory Council on Health Planning and Development.

The bill provides congressionally determined priorities in the development and operation of federal, state and local health planning programs. These are:

Primary care services for the medically underserved, especially the rural and economically depressed; multi-institutional systems for coordination or consolidation of institutional health services; development of medical group practices; training and utilization of physician extenders; multi-institutional sharing of support services; promotion of needed improvements and quality health services including needs identified by PSRO; institutional provision of various levels of care on a geographically integrated basis; promotion of disease prevention and a study of nutritional and environmental factors; uniform cost accounting, simplified reimbursement and utilization reporting and improved management procedures; and methods of general public education of personal health care and use of available health services.

A National Advisory Council on Health Planning and Development would be established in HEW to assist the Secretary in development of national guidelines. The council would have fifteen members: twelve voting members appointed by the Secretary, four of whom could not be providers, and representatives of HEW, Veteran's Administration and the Department of Defense, ex officio. No specific provision is made for inclusion of providers.

PART B. Health Areas and Health Planning Agencies

The Secretary of HEW, in consultation with the governor of a state, would divide the country into regions designated as health areas. An area could generally not cross state boundaries or Standard Metropolitan Statistical Areas. Unless the governor indi-

(Continued on Page 360)

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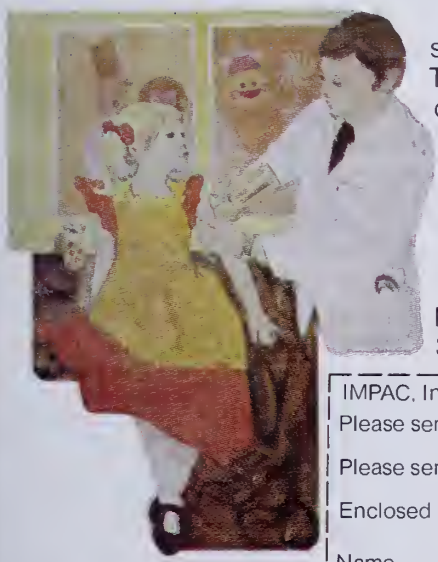


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(Continued From Page 358)

cated otherwise, the health area would be identical with any existent areawide health planning agency. In the establishment of health areas, the governor would consult with local executive officers and the state areawide planning agencies. For each health area there would be a health planning agency.

A health planning agency would be a nonprofit corporation or public entity designated as such by the Secretary and functioning under a direct agreement with the Secretary. Each health planning agency would be governed by a body of ten to thirty members and this number could be increased if the governing body chose to establish an executive committee. It would also have a professional staff. The composition of the governing body would be representative of the general population and providers, and a majority would be consumers (to a maximum of 60%).

As primary responsibilities, the health planning agency would make provision for effective health planning and promotion within the area of health services and facilities to meet identified needs. The agency would also be responsible for establishing annually and implementing: (a) a long-range goal plan (LGP) and (b) a short-term priorities plan (SPP). Plans would be made after appropriate consideration of the recommended national guidelines issued by the secretary. The agency could establish advisory bodies as sub-area councils representing respective parts of its health area and reflecting the composition of the governing body as nearly as possible.

The health planning agency would have authority to make grants and enter into contracts with public and private entities for planning and developing projects. Such grants and contracts would be financed from federal funds paid from the Area Health Services Development Fund established for that purpose. The amount could not exceed one dollar per person in the health area.

With certain exceptions, each proposed use of federal funds under either this bill, the Public Health Services Act, the Community Mental Health Centers Act or the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970, would be reviewed by the agency. Disapproval by the agency would be subject to review by the Secretary. After first giving the state health agency an opportunity to consider the agency decision and submit comment, the Secretary could override the agency decision.

The agency would review and make recommendations respecting need for proposed or new institutional services, health facilities and HMOs to the state agency having responsibility under Section 1122 of the Social Security Act and state certificate of need authority.

Each health planning agency would periodically review and make recommendations to the state agency for certification of health services, health care facilities and HMOs offered in the area. Such periodic review would not be required, however, in the case of services and facilities subject to Section 1122 or certificate of need authority. The planning agency would also recommend rates where the state agency chose to regulate rates, and would forward recommendations for a determination of such rates to the state agency. All reviews would be made in accordance with procedures and criteria established by regulations; such regulations would require appropriate notices to persons affected and would include provision for public hearings when requested by such persons.

Federal technical assistance would be available to entities desiring to be designated as health planning agencies as well as any which were in fact so designated. Entities desiring such designations could receive technical assistance in developing their applications and otherwise meeting requirements.

After designation as a health planning agency, an entity would receive guidelines for national health policy and technical and

other assistance and materials for use in health planning. In addition, it would receive grants for planning activities and for its area health services development fund. These would be annual formula grants based on area population.

PART C. State Health Planning and Development Agencies

State agencies would be so designated under contracts with the Secretary. Initial designation as a state agency may be conditional for two years. A designated agency would have an annual agreement which could be terminated by either party within ninety days. A state administrative program, approved by the Secretary, would provide for certain regulatory functions and would designate the state agency as the sole agency in the state for the performance of these functions. Provision for Section 1122 review and a state certificate of need authority would be required.

Each state agency would be responsible for preparing and annually revising a preliminary state long-range and short-range plan composed of all LGPs and SPPs in the state, but such plans could be revised by the state agency to insure coordination at a state level. In addition, the state agency would be responsible for review under Section 1122 and administration of a state certificate of need program applicable to new institutional services, health care facilities and HMOs.

A state agency could also enter into an agreement with the Secretary for funds to develop rate regulation of those engaged in the delivery of health services as defined by the Secretary.

A Statewide Health Coordinating Council (SHCC) composed of at least sixteen members appointed by the governor with at least two members from each health planning agency and having a majority of consumers would be established. The SHCC would prepare, review and revise the state plan, review the annual budget of each health planning agency, review planning grants and development grants of each health planning agency, review annually and approve or disapprove state plans for federal grants and advise the state agency.

PART D. Miscellaneous Provisions

The bill defines provider of health services as an individual

(a) who receives (either directly or through his spouse) more than one tenth of his gross annual income from any one or combination of the following:

(1) fees or other compensation for the provision of research into, the provision of, or instruction into the provision of, health services

(2) financial interest in entities engaged in such provision, research or instruction

(3) producing or supplying, or from financial interest in entities engaged in producing or supplying, drugs or other articles for individuals or in entities engaged in the provision of, research into the provision of, or instruction in the provision of, health services

(4) financial interest in entities engaged in idemnifying the provision of health services.

(b) who holds a fiduciary position with or has a fiduciary interest in, any entity described above.

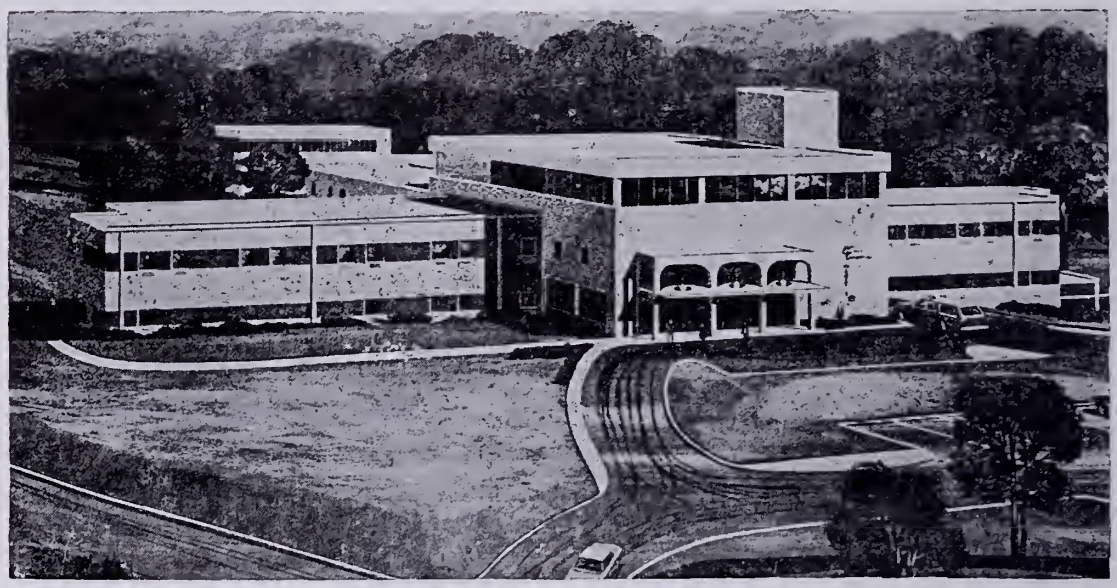
The bill also provides procedures and criteria for review of proposed health delivery system changes by state and local agencies and technical assistance to planning agencies to be provided by the Secretary.

In addition, the Secretary is given power to review annually the budgets of each health planning agency, to prescribe performance standards for personal and agency activities of each state and local agency and to review at least every three years the structure, operation and performance of each state and local agency.

HILL-BURTON AMENDMENTS

The Hill-Burton provisions, as amended by this bill, provide for allotments and grants

(Continued on Page 367)



Hill Crest HOSPITAL

For Intensive Treatment of Psychiatric Disorders

This 113-bed non-governmental psychiatric hospital provides modern facilities for diagnosis and treatment of patients with all degrees of illness, including those who show severely disturbed behavior. Alcoholic and drug abuse patients are also accepted.

In addition to care by psychiatrists and by consultants in all medical specialties, the treatment program includes occupational, recreational, and physical therapy, social services, and tutoring. Emphasis is on short-term, intensive treatment of voluntary patients.

Hill Crest is a member of: American Hospital Association, National Association of Private Psychiatric Hospital, Alabama Hospital Association, Birmingham Regional Hospital Council.

Accredited by Joint Commission on Accreditation of Hospitals. Medicare Approved. Blue Cross Participating Hospital.

PSYCHIATRISTS:

James K. Ward, M. D.
F. Joseph Nuckols, M. D.
James A. Greene, M. D.
Charles W. Moorefield, M. D.
Otto F. Eisenhardt, M. D.

ADMINISTRATOR:

Robert V. Sanders

HILL CREST HOSPITAL

Hill Crest Foundation, Inc.

6869 Fifth Avenue South **Birmingham, Alabama 35212**

PHONE: 205-836-7201

KEEP THE HYPERTENSIVE PATIENT ON THERAPY KEEP THERAPY SIMPLE WITH DYAZIDE®

Trademark

Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

Just 'Dyazide' once daily or twice daily
No inconvenient potassium supplements
Nor special K^+ rich diets needed as a rule



Two prime reasons patients drop out of hypertensive therapy are (1) the patient failed to understand directions, and (2) the regimen was overly complicated. Dosage is simple with 'Dyazide', easily understood, once or twice daily, depending on response. There's no need to complicate the regimen with potassium supplements or unwieldy potassium-rich diets.

Before prescribing, see complete prescribing information in SK&F literature or *PDR*. The following is a brief summary.

Indications: Edema associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. Also, mild to moderate hypertension.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: **Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired.** Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, **check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently**—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

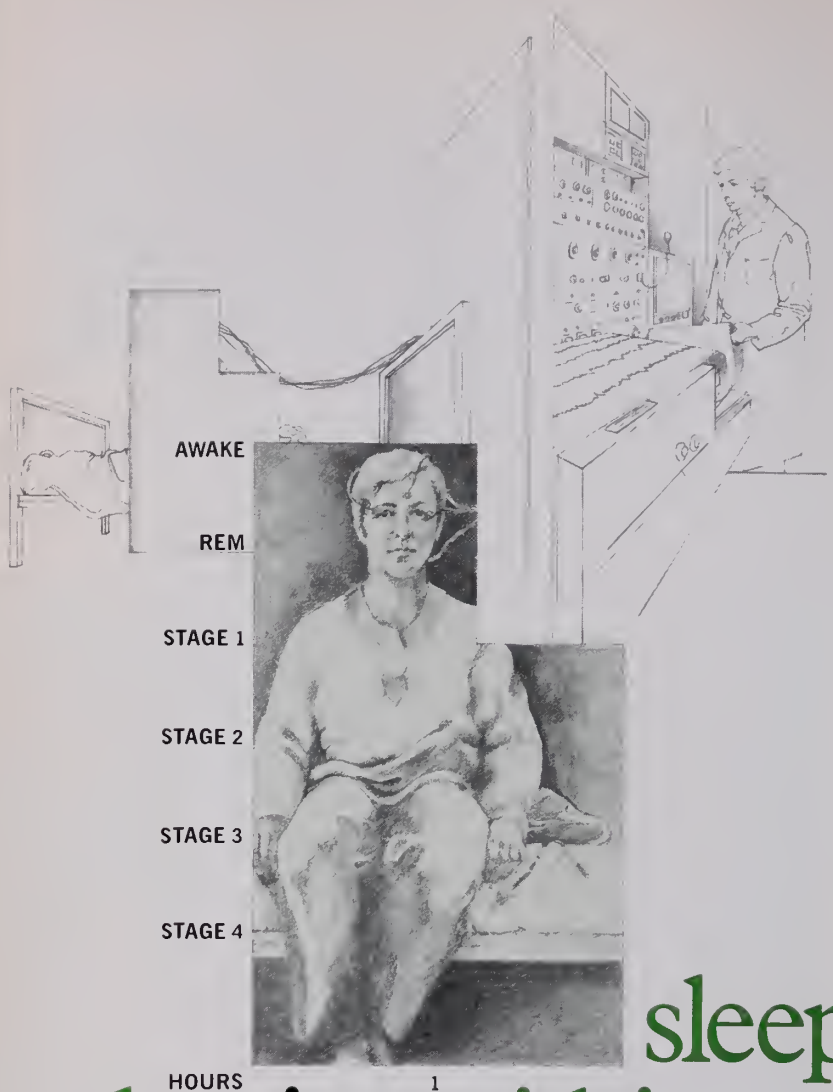
Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

Supplied: Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

SK&F CO.
Carolina, P.R. 00630
Subsidiary of
SmithKline Corporation

TO KEEP BLOOD PRESSURE DOWN AND KEEP POTASSIUM LEVELS UP



sleep begins within 17 minutes, on average...

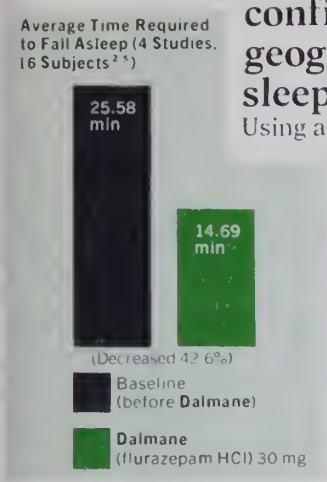
an initial benefit of

Dalmane®

(flurazepam HCl)

proved by a 22-night clinical study of insomnia patients in the sleep research laboratory and at home[1]

Three insomnia patients selected for difficulty falling asleep were administered Dalmane (flurazepam HCl) 30 mg for 14 consecutive nights. Placebo was given for four nights prior to and four nights after Dalmane. Physiologic tracings on Dalmane nights 1-3 showed sleep induction time averaged 13.90 minutes; on Dalmane nights 12-14, 18.80 minutes. Combined average for the 6 monitored drug nights was 16.35 minutes.[1]



confirmed by clinical studies in four geographically separated sleep research laboratories[2-5]

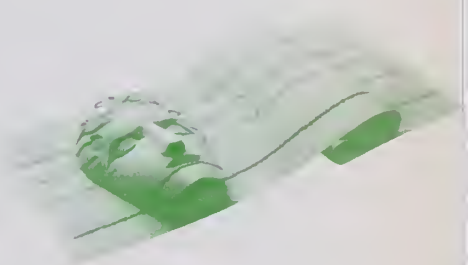
Using a 14-night protocol involving eight insomniac and eight normal subjects, four studies confirmed the sleep-inducing effectiveness of Dalmane (flurazepam HCl) and the reproducibility of this response. On average, one 30-mg capsule induced sleep within 17 minutes. In all these studies, Dalmane induced sleep rapidly, reduced nighttime awakenings, and provided 7 to 8 hours of sleep without repeating dosage[2-5]

Dalmane (flurazepam HCl) induces and maintains sleep, with relative safety

Dalmane is generally well tolerated; morning "hang-over" has been relatively infrequent. While dizziness, drowsiness, lightheadedness and the like have been noted most often, particularly in the elderly and debilitated, physicians should be aware of the possibility of more serious reactions, as noted below.

Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.
Contraindications: Known hypersensitivity to flurazepam HCl.
Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.
Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.
Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.
Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.
Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



when restful sleep is indicated

Dalmane®
(flurazepam HCl)

One 30-mg capsule *h.s.* — usual adult dosage (15 mg may suffice in some patients).
One 15-mg capsule *h.s.* — initial dosage for elderly or debilitated patients.

- induces sleep within 17 minutes, on average
- reduces nighttime awakenings
- sustains sleep 7 to 8 hours, on average, without repeating dosage

REFERENCES: 1. Kales A, *et al*: *Arch Gen Psychiatry 23*:226-232, Sep 1970
2. Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington DC, May 3-7, 1971
3. Frost JD Jr: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ
4. Vogel GW: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ
5. Dement WC: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ

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Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

When diarrhea has his number...



Lomotil puts him back in the game.

Physicians and patients both want prompt control of the symptoms of diarrhea. A rapid, uncontrolled loss of fluids and electrolytes can cause a medical crisis, particularly in children, and in patients who are seriously ill, or in people who are badly undernourished.

Lomotil usually stops diarrhea promptly. This rapid action halts the emergency aspect of diarrhea and is comforting and reassuring to the patient. Electrolyte and fluid losses can be corrected while the specific cause of the diarrhea is being determined. If an infective agent is the cause, appropriate antibiotic therapy should be given along with Lomotil.

Lomotil has few side effects, and those that do occur are generally mild.

Lomotil®
TABLETS/LIQUID

Each tablet and each 5 ml. of liquid contain:
diphenoxylate hydrochloride ..... 2.5 mg.
(Warning: May be habit forming)
atropine sulfate ..... 0.025 mg.

Usually stops diarrhea promptly.

IMPORTANT INFORMATION: *This is a Schedula V substance by Fadaral law; diphenoxylate HCl is chemically ralatad to maperidina. In case of overdosage or individual hypersensitivity, reactions similar to those alter meperidine or morphina overdosaga may occur; treatmant is similar to that for meperidina or morphine intoxication (prolonged and careful monitoring). Respiratory depression may recur in spite of an initial rasponsa to Nallina® (nalorphine HCl) or may ba evidencad as lata as 30 hours alter ingestion. LOMOTIL IS NOT AN INNOCUOUS DRUG AND DOSAGE RECOMMENDATIONS SHOULD BE STRICTLY ADHERED TO, ESPECIALLY IN CHILDREN. THIS MEDICATION SHOULD BE KEPT OUT OF REACH OF CHILDREN.*

Indications: Lomotil is effective as adjunctive therapy in tha management of diarrhea.

Contraindications: In children less than 2 years, due to the decreased safety margin in younger age groups, and in patients who are jaundiced or hypersansitive to diphenoxylata HCl or atropine.

Warnings: Usa with caution in young children, becausa of variabla response, and with extreme caution in patients with cirrhosis and other advanced hapatic disease or abnormal liver function tests, because of possibla hepatic coma. Diphenoxylate HCl may potentiate tha action of barbiturates, tranquilizers and alcohol. In theory, the concurrent usa with monoamine oxidase inhibitors could precipitate hypertensiva crisis.

Usage in pregnancy: Weigh the potential benefits against possibla risks befora using during pregnancy, lactation or in women of childbearing age. Diphenoxylate HCl and atropine are secreted in the breast milk of nursing mothers.

Precautions: Addiction (dependency) to diphenoxylate HCl is theoretically possible at high dosage. Do not exceed recommended dosages. Administer with caution to patients receiving addicting drugs or known to be addiction prone or having a history of drug abuse The subtherapeutic amount of atropine is added to discourage deliberate overdosage; strictly observe contraindications, warnings and precautions for atropine; use with caution in children since signs of atropinism may occur even with the recommended dosage.

Adverse reactions: Atropine effects include dryness of skin and mucous membranes, flushing and urinary retention. Other side effects with Lomotil include nausea, sedation, vomiting, swelling of the gums, abdominal discomfort, respiratory depression, numbness of the extremities, headache, dizziness, depression, malaise, drowsiness, coma, lethargy, anorexia, restlessness, euphoria, pruritus, angioneurotic edema, giant urticaria and paralytic ileus.

Dosage and administration: ***Lomotil is contraindicated in children less than 2 years old.*** Use only Lomotil liquid for children 2 to 12 years old. For ages 2 to 5 years, 4 ml. (2 mg.) t.i.d.; 5 to 8 years, 4 ml. (2 mg.) q.i.d.; 8 to 12 years, 4 ml. (2 mg.) 5 times daily; adults, two tablets (5 mg.) t.i.d. to two tablets (5 mg.) q.i.d. or two regular teaspoonfuls (10 ml., 5 mg.) q.i.d. Maintenance dosage may be as low as one fourth of the initial dosage. Make downward dosage adjustment as soon as initial symptoms are controlled.

Overdosage: Keep the medication out of the reach of children since accidental overdosage may cause severe, even fatal, respiratory depression. Signs of overdosage include flushing, lethargy or coma, hypotonic reflexes, nystagmus, pinpoint pupils, tachycardia and respiratory depression which may occur 12 to 30 hours after overdose. Evacuate stomach by lavage, establish a patent airway and, when necessary, assist respiration mechanically. Use a narcotic antagonist in severe respiratory depression. Observation should extend over at least 48 hours.

Dosage forms: Tablets, 2.5 mg. of diphenoxylate HCl with 0.025 mg. of atropine sulfate. *Liquid,* 2.5 mg of diphenoxylate HCl and 0.025 mg. of atropine sulfate per 5 ml. A plastic dropper calibrated in increments of ½ ml. (total capacity, 2 ml.) accompanies each 2-oz. bottle of Lomotil liquid.

SEARLE **Searle & Co.**
San Juan, Puerto Rico 00936

Address medical inquiries to:
G. D. Searle & Co.
Medical Department, Box 5110,
Chicago, Illinois 60680

454 R

to states, loans and loan guarantees to non-profit entities for: (1) construction or modernization of public or other non-profit facilities which will serve medically underserved populations or populations which, without the modernization of such facilities, would be designated medically underserved populations.

For fiscal 1975 and each of the two succeeding years, the bill authorizes one hundred and twenty five million dollars. Funds appropriated would be divided equally between allotments and grants. For the same three years sums would be authorized "as necessary" for direct loans and loan guarantees.

PART A. State Allotments

Allotment, based on state population and per capita income, would be made to states for the foregoing purposes and would be at least one million dollars a year for any state and five hundred thousand dollars a year for any of the territories.

An allotment to any state would be conditioned upon approval by the Secretary of the State Health Facilities Plan. To receive such approval, a state plan would designate the state agency that would administer the plan, provide for a statewide health coordinating council, advice and consultation with the state agency in carrying out the plan, and for approval of the plan by that council as consistent with its long-range state health plan.

PART B. Direct Grants, Loans and Loan Guarantees

In addition to the Part A allotments to states for the construction or modernization of non-profit, outpatient facilities and for the modernization of non-profit health facilities in underserved areas, the bill provides for assistance for these purposes through federal grants and loans. The Secretary would have authority to make direct grants and loans to public or other non-profit entities and to guarantee to non-federal lenders, loans of principal and interest by such lenders to non-profit private entities.

Grants would be limited generally to 75 per cent of the cost of a project. There could be as much as 100 per cent for construction or modernization of a facility to be located in an urban or rural poverty area.

The sum of a loan guarantee and a grant or loan could not exceed 90 per cent of the project cost (100 per cent for construction or modernization of a facility in an urban or rural poverty area). The same percentage limitations would apply with respect to a combination of grant and loan.

Interest on guaranteed loans would have to be reasonable and at prevailing rates and would be subsidized by the Secretary in an amount equal to the lesser of (a) one half of the interest rate and (b) four and one half per cent per year.

A Federal Loan and Loan Guarantee Fund would be established with authorization and appropriation of amounts "as necessary" to provide the capital requirements for the fund.

Priorities for assistance would be based on relative population and area need with special consideration for projects for outpatient facilities in rural and urban poverty areas, projects to eliminate safety hazards, and projects to avoid noncompliance with state licensing and accreditation standards.

Applications for Assistance—Application for assistance would be required under the Part A State Allotment Program and the Part B Program of Direct Assistance through grants, loans or loan guarantees. Application would be made to the Secretary through the state agency under Part A and directly to the Secretary under Part B.

Each application would have to set forth details of the project and contain reasonable assurances:

(a) if application is for modernization, that the facility, when completed, will serve a medically underserved population;

(b) if application is by a non-profit private entity for construction or modernization of any outpatient facility, that the services of the general hospital will be available to patients of such facility who are in need of hospital care and;

(c) that the facility to be constructed or modernized will be made available to all persons residing or employed in the area served by the facility and that there will be made available in the facility a reasonable volume of services to persons unable to pay therefor.

Radiation, Health and Safety—The bill amends the Public Health Services Act by adding a new subpart entitled Radiological Technologists, for the stated purpose of assuring an adequate supply of trained and experienced technologists, and protecting the public health and safety from hazardous radiation exposure.

Within one year after enactment the Secretary would issue regulations establishing minimum criteria and standards for the accreditation of educational institutions offering programs of training for radiologic technologists and for use and accreditation of institutional programs of training of medical and dental practitioners, dental hygienists and dental assistants. The Secretary would also issue criteria to establish minimum licensure standards for radiologic technologists with appropriate differences for certain categories for specialization.

Each state would have two years in which to promulgate laws meeting the Secretary's minimum standards for accreditation and licensure. Should a state fail to meet the Secretary's standards, the Secretary's promulgated standards for accreditation and licensure would be effective in that state. The Secretary would review annually state programs established pursuant to this bill and modify any parts which were contrary to the Secretary's revised criteria or standards.

The bill would make it a federal offense for any individual to apply potentially hazardous radiation to any person for diagnostic or therapeutic purposes unless he is a licensed medical practitioner, dentist, hygienist or radiological technologist.

New "Body Map" Seen Aid For Diabetes Sufferers

For the 10 million Americans who either have diabetes or will soon get it, a Birmingham doctor has come up with a way for these patients to eliminate the painful side effects of daily insulin injections.

The new medical tool is a "body map" which makes it possible for diabetes sufferers to systematically inject themselves in about 200 different parts of the body thereby eliminating the danger of getting fibrosis and atrophy. This happens when daily injections are administered frequently at the same site.

Leon S. Smelo, M. D., Baptist Hospitals Foundation of Birmingham, said that most diabetics do not realize that there are so many different body sites where they can inject. "Our body map makes it possible for them to rotate injections methodically and without touching the same area twice over a period of weeks and even months," Dr. Smelo said.

Dr. Smelo's "body map" book contains a 12 month supply of front-and-back view maps, which include a system of grids covering parts of the body in which injections may be made. As each day's injection is made, the patient simply records the date within the grid covering the injection site.

The "body map" look is available for $2.00. Checks should be made out to the "Baptist Hospitals Foundation." Bulk rates are available for hospitals, institutions, medical clinics and nursing homes. All funds generated will be used for further diabetes research by the William M. Smelo Memorial Diabetes Trust, established in 1960. Write Dept. DCI-Diabetes, Baptist Hospitals Foundation of Birmingham, 3201 4th Avenue, Birmingham, Ala., 35222.

EDITOR'S NOTE: *A free copy of the "body map" is available upon request for review purposes. Please call Manny Ellenis (212) MU 7-1383 or write "Diabetes," Development Counsellors International, 20 East 46 St., Suite 901, New York 10017 for your free copy.*

STAFF PHYSICIAN

Large, Modern Industrial Complex

This position, with the world's leading designer and manufacturer of ships, affords the industrially-oriented M. D. an outstanding professional opportunity.

You will be a key member of our well-equipped medical center . . . boasting extensive lab facilities in clinical medicine & environmental life sciences . . . as well as a large, professional staff. Your involvement will include performing clinical examinations of employees, treating industrial injuries and occupational diseases. U. S. citizenship required. In addition to an attractive compensation package we offer the benefit of a regular schedule and the scenic beauty of Newport News, Virginia—well known for its exceptional historic, educational, recreational and cultural facilities.

If interested in this outstanding opportunity, send curriculum vitae to Gerald O. Vaughn, Professional Recruiter-Salaried Employment, Newport News Shipbuilding, Newport News, Virginia 23607 . . . or call (804) 247-4878.

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WANTED: PHYSICIAN IN ADJUDICATIVE MEDICINE

Veterans Administration Regional Office, Montgomery, Alabama. Equal Opportunity Employer. Position in Federal career civil service at grade GS-12, beginning salary $23,998 per annum. Liberal fringe benefits. Regular 40-hour week office work. Reply to O. N. FREDERICK, Personnel Officer, VA Regional Office, 474 South Court Street, Montgomery, AL 36104, telephone 265-5611, ext. 205.

CONTINUING MEDICAL EDUCATION

by Larry Dixon

CME Questionnaire

DIRECTIONS: Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the *one* that is BEST in each case.

1. A 48-year-old man complains of dull generalized headaches for the past six months. The headaches occur in the morning hours and are relieved by aspirin. In the past three months he has noted occasional brief (1-to 2-second) moments when his vision totally disappears in a gray haze, but is completely normal immediately afterward. The visual disturbances often occur when he coughs or strains.

   Which of the following diagnoses would be likely?

   A. Glaucoma
   B. Brain Tumor
   C. Migraine
   D. Anxiety-tension state
   E. Basilar artery insufficiency

2. A helpful finding in distinguishing amyotropic lateral sclerosis from myleopathy associated with cervical disk disease is

   A. the presence of fasciculations in the forearms and hands bilaterally
   B. increased serum enzymes (aldolase and creatine phosphokinase)
   C. pseudobulbar palsy
   D. extensor plantar (Babinski) responses
   E. the absence of a spinal subarachnoid block on lumbar puncture

3. A 50-year-old man suddenly developed double vision and pain in the right frontal region. Previously he had been well except for weakness, paresthesia and burning pain in the left leg, which had developed three months earlier and still persisted. On physical examination there was paralysis of upward and inward movements of the right eye. Both pupils reacted to light. Which of the following is the most likely diagnosis?

   A. Diabetic ophthalmoplegia
   B. Thrombosis of the right internal carotid artery
   C. Guillain-Barré syndrome
   D. Temporal arteritis
   E. Retrobulbar neuritis associated with multiple sclerosis

4. A 40-year-old woman has had frontal headaches for one year, and a six-month history of difficulty with vision. The neurologic examination disclosed no abnormalities except for bitemporal hemianopia. The most important single diagnostic measure would be

   A. electroencephalogram
   B. brain scan
   C. plain roentgenograms of the skull
   D. lumbar puncture
   E. four-vessel angiography

5. A 45-year-old merchant seaman returning from the Far East awoke at night with severe pain in his right shoulder. He was able to elevate his right arm. When examined four weeks later, some shoulder pain was still present though not severe, and there was atrophy of the right deltoid and supraspinatus muscles and "winging"

of the right scapula. Decreased cutaneous sensations was noted in an area 2 in. in diameter over the right deltoid.

The most likely diagnosis is

A. fifth cervical root compression

B. lathyrism

C. acute brachial neuritis

D. thoracic outlet syndrome

E. leprosy

6. A 63-year-old man with hypertension had a sudden onset of vomiting with vertigo and headaches. On examination there was nystagmus, right-sided ataxia, right facial paralysis, decreased corneal reflex on the right and conjugate deviation of the eyes to the left.

The most likely diagnosis is

A. cerebral hemisphere infarction

B. sagittal sinus thrombosis

C. intracerebellar hemorrhage

D. rupture of posterior communicating artery aneurysm

E. thalamic hemorrhage

7. Delayed central nervous system deterioration after apparent initial recovery is characteristic of poisoning by

A. carbon monoxide

B. arsenic trioxide

C. carbon tetrachloride

D. organophosphate

E. methyl alcohol

8. An extramedullary cord tumor at the level of C5 may produce decreased sensation to pain and temperature at levels of T7 and below because

A. the lateral spinothalamic tracts ascend one or two segments before crossing

B. the lateral spinothalamic tracts descend one or two segments before crossing

C. The spinothalamic fibers cross near the center of the spinal cord and are resistant to extramedullary compression

D. the lateral spinothalamic tracts are laminated with the most caudal segments near the periphery

E. pain is transmitted bilaterally in the lateral spinothalamic and ventral spinothalamic tracts.

9. A 30-year-old patient complains of double vision, especially on looking to the right, which occurs repeatedly each day. The diplopia is more marked toward the end of the day and rarely occurs in the morning hours. She recalls that in the past two months she has left her steaks unfinished because of fatigue in her jaw muscles during chewing.

Which of the following procedures would be most likely to establish the diagnosis?

A. muscle biopsy

B. cerebrospinal fluid examination

C. electroencephalogram

D. roentgenograms of the skull

E. edrophonium chloride (Tensilon) test

10. A 40-year-old piano teacher has had tinnitus for three years. During the past six months, she has noted a progressive diminution in hearing in her right ear, a sensation of "giddiness," numbness of the right side of her face and awkwardness in the use of her right hand.

Neurologic examination would be expected to show each of the following EXCEPT

A. dysdiadochokinesia on the right

B. loss of hearing in the right ear

C. decreased response to caloric stimulation on the right side

D. paralysis of the right lateral rectus muscle

E. decreased corneal reflex on the right

Correct Answers: 1-B, 2-C, 3-A, 4-C, 5-C, 6-C, 7-A, 8-D, 9-E, 10-D

SIGHTS AND SOUNDS

Treatment of Parkinsonism with Levodopa (22-796)

George W. Paulson, M. D.

Parkinsonism is an old disease, with major manifestations of rigidity, akinesia, and tremor. This film depicts these features of the disease, and briefly discusses the historical and biochemical impact and relevance of Levodopa. The side effects of dyskinesia are illustrated in one patient and some other major side effects of the medication are briefly reviewed.

The film is intended for either medical or paramedical audiences as an introduction to the use of Levodopa in parkinsonism.

16 mm., sound, color, 14 minutes (1971) IV

Abnormal Movements (22-810)

George W. Paulson, M. D.

There are many types of abnormal movements seen in Neurology practice and only a few can be summarized in this film.

Included are some of the basal ganglia movements such as Wilson's disease, parkinsonism, and Huntington's chorea. In addition, major gait disturbances such as hemiplegia are briefly shown and some anatomical correlation is made.

Drawings and films of the patients are utilized to present the material, which is intended primarily for medical students and medical audiences.

16 mm., sound, color, 15 minutes (1971) IV

Differential Diagnosis of Parkinsonism (22-809)

E. Richard Blonsky, M. D.

Since the introduction of potent chemotherapeutic agents in the treatment of Parkinson's disease, it has become important to differentiate this syndrome from others which mimic it in various ways.

Typical parkinson patients are contrasted with others who display heightened muscle tone, bradykinesia or various types of tremors. The features which distinguish parkinsonism are clearly emphasized.

16 mm., sound, color, 14 minutes (1971) IV

Physical Therapy in the Treatment of Parkinsonism (22-811)

E. Richard Blonsky, M. D.

Poverty and distortion of movement characterizes Parkinson's disease. In view of the modification of rigidity and akinesia resulting from modern chemotherapy, physical therapy should play a major part in the treatment program of this disease with rehabilitation the goal.

A group physical therapy approach is demonstrated with stresses alternating reciprocal movements of the limbs and trunk. The result of therapy is the re-establishment and retention of normal patterns by these patients.

16 mm., sound, color, 15 minutes (1971) IV

Huntington's Disease (22-812)

George W. Paulson, M. D.

Huntington's disease is one of the most tragic of all inherited diseases of adults.

Several representative cases are shown in this film. In addition, special attention is directed to the less commonly recognized rigid form of this disease.

Radical Operation For Carcinoma of the Vulva During Pregnancy (22-770)

Denis Cavanagh, M. D., F. A. C. O. G.

This film concerns the treatment of a patient who was found to have invasive carci-

noma of the vulva in the 24th week of pregnancy.

She was treated with radical vulvectomy and bilateral groin lymphadenectomy at this stage in pregnancy. At the 38th week of pregnancy a cesarean hysterectomy with bilaterial pelvic lymphadenectomy was performed.

The use of lymphography in the management of this patient is discussed.

16 mm., color, sound, 15 minutes (1967) IV

Groin Dissection (22-820)

Kermit E. Krantz, M. D.

This film presents an anatomical and surgical approach to the anatomy of the groin of the female with special reference being placed upon the relationships of the vascular nerve and lymphatic supply.

This would aid the physician in understanding the diagnostic and surgical aspects of the groin in relationship to malignancy and the infectious process, as well as in comprehending the problem evolving from hernial repair.

The dissections are carried out on humans and are oriented to the surgical approach.

16 mm., sound, color, 15 minutes (1973) IV

Repair of Old Complete Perineal Lacerations (22-841)

Fred T. Given, Jr., M. D., James D. Via, M. D.

This film demonstrates the classical layer type of repair of an old complete perineal laceration with careful anatomical restoration of the entire perineal body. The use of the paradoxical incision or anal sphincterotomy allowing partial decompression and careful preoperative mechanical and antimicrobial bowel preparation is emphasized.

16 mm., sound, color, 14 minutes (1973)

Absorption (22-839)

Henry J. Binder, M. D.

This film is concerned with the mechanisms of intestinal absorption in general, methods of studying absorption, and some details of electrolyte, water, protein, and carbohydrate absorption.

16 mm., sound, color, 20 minutes (1973) IV

The previous films are made available from Eaton Laboratories. Films may be obtained by contacting your local Eaton representative or by writing to: Eaton Medical Film Library, Eaton Laboratories Division, Morton-Norwich Products, Inc., Norwich, New York 13815.

Sixth Annual Family Practice Refresher Course February 9-15, 1975

Registration is now open through January 24, 1975, for this course, which is presented by the Division of Continuing Education of the Medical University of South Carolina. 38½ hours AAFP credit. Tuition: $140.00. Enrollment is limited to 100. For information and registration write: Vince Moseley, M. D., Director, Division of Continuing Education, Medical University of South Carolina, 80 Barre Street, Charleston, South Carolina, 29401.

LOCUM TENENS

Temporary staff positions are available for primary care physicians in an interdisciplinary program of comprehensive care for multiply handicapped retarded children and adults at the Partlow State School and Hospital (State of Alabama—Department of Mental Health). Alabama license required. Salary $2500 a month. Address inquiries to: Dr. Richard Buckley, Superintendent, Partlow State School and Hospital, P. O. Box 1730, Tuscaloosa, Alabama 35401. Telephone: (205) 553-4550.

The Eight-Day Week: A Study In Time Structure

By James A. Greene, M.D.
Birmingham, Alabama

EDITOR'S NOTE: *Permission has been received from Dr. Greene to reprint this article, which was published in the November, 1974 issue of* Hospital & Community Psychiatry.

Abstract

This study deals with the structuring of time of the staff of a psychiatric practice and the influence it has had on a psychiatric hospital service. Non-productive weekend time and general pressure for leisure time were the stimuli for seeking a new time structure.

Psychiatry Associates, P. A., commissioned Dr. James A. Greene and Mr. James T. Kemp to propose a schedule that would: (1) Provide 7-day-a-week office consultation and outpatient treatment and inpatient care that did not allow any days to be non-productive to the hospitalized patient; (2) Be attractive to prospective, as well as active, staff members, such as psychiatrists and skilled paramedical personnel who are called on for services seven days a week.

Dr. Greene and Mr. Kemp recommended an equal division of the staff into teams, each including a psychiatrist, social worker and adjunctive therapist. The suggested schedule called for two teams to work ten hours a day for eight consecutive days, followed by six days off. Monday was selected as the day on which both divisions were present for "change-over", when all administrative meetings, grand rounds and data exchange was completed and responsibility was transferred to the alter teams as they began their eight-day duty.

To facilitate planning and avoid confusion, the doctor on duty at the time a patient was first seen, either as an outpatient or in the hospital, became the team leader responsible for primary planning of the patient's treatment, while the alternate team carried on in his absence and modified plans only as necessary for day to day treatment.

Psychiatry Associates, P. A. decided to attempt the experiment, assisted by the psychiatric social workers on the staff of Hill Crest Hospital, and after several months of experimental operation, adopted the system permanently. Evaluation of the eight/six program, after some 16 months of operation, leads to the following conclusions. Efficiency in the practice and in the hospital has improved dramatically. More specifically, there has been a significant drop in the average length of stay per patient, in the cost per patient and in the absenteeism of the staff. Patients and families prefer the new system by a margin of approximately four to one. The only significant disadvantages seemed to be the heavier patient load and some difficulty in communication of data from off-going to on-coming teams.

Introduction

Psychiatry Associates, P. A., a private psychiatric practice, has five psychiatrists engaged in an active outpatient practice, as well as providing full professional services for the inpatients of Hill Crest Hospital. The hospital, located in Birmingham, Alabama, recently moved into a new facility which increased its bed capacity from approximately 60 to over 100. It is currently operating with an average census of some 80 patients. The average length of stay for a patient in this short term intensive treatment hospital is approximately three weeks.

Man's basic needs, according to Eric Berne, include hunger for recognition, for stimulation and for the structuring of time. One of these needs has been considered in a unique way by Psychiatry Associates, P. A., as will be shown in this study which deals with (1) the structuring of time of the staff of psychiatric practice and, (2) the influence it has had on psychiatric hospital services.

(Continued on Page 377)



Putting out the fires of arthritic pain

Rheumatoid arthritis can sometimes spread like wildfire, with joint after joint going up inflamed: "The usual onset is manifested by spotty joint involvement but an acute onset of symmetrical polyarthritis may be noted."*

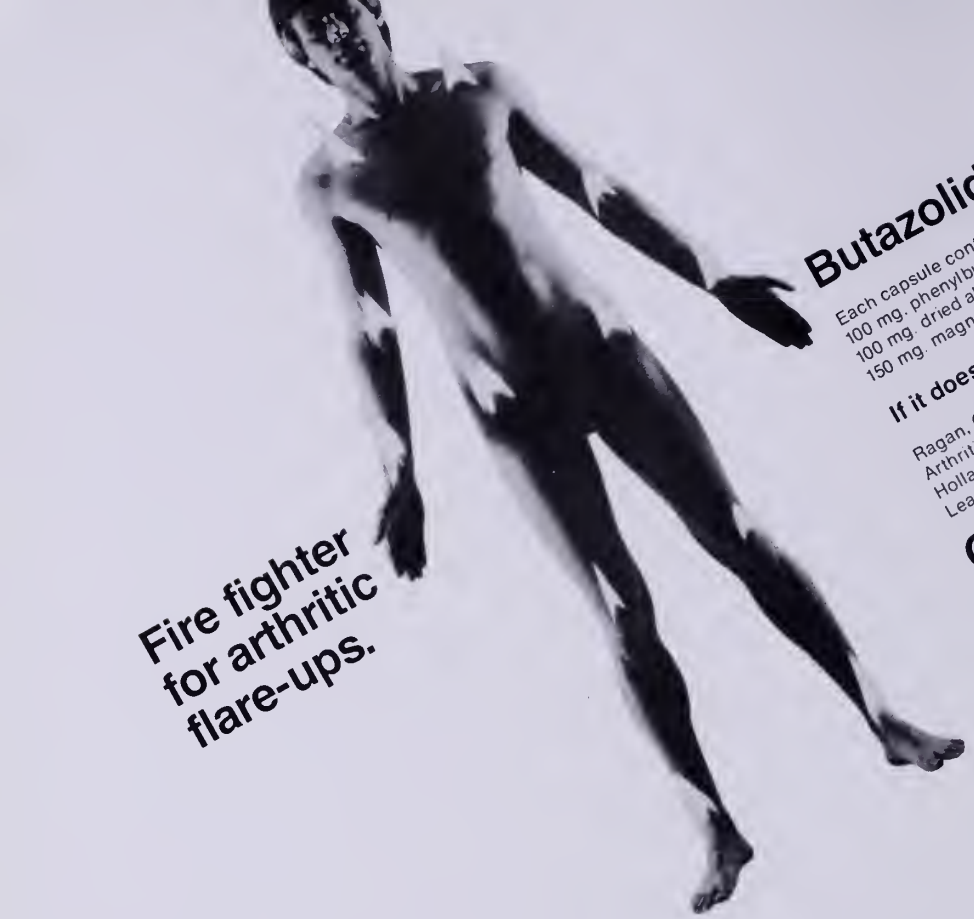
If aspirin fails, consider Butazolidin alka. Giving one capsule four times a day often provides prompt, pain-relieving, anti-inflammatory action to help restore joint mobility. The results you can get within a week can be maintained on as little as one or two capsules daily.

Serious side effects can occur. Select patients carefully (particularly the elderly) and follow them closely in line with the drug's precautions, warnings, contraindications and adverse reactions. For full details, please read the prescribing information. It's summarized on the back of this page.

Butazolidin® alka

Each capsule contains:
100 mg. phenylbutazone USP
100 mg. dried aluminum hydroxide gel USP
150 mg. magnesium trisilicate USP

If it doesn't work in a week, forget it.



Fire fighter for arthritic flare-ups.

Butazolidin® alka

Each capsule contains:
100 mg. phenylbutazone USP
100 mg. dried aluminum hydroxide gel USP
150 mg. magnesium trisilicate USP

If it doesn't work in a week, forget it.

Ragan, C.: The Clinical Picture of Rheumatoid Arthritis, in Arthritis, ed. 8, edited by J. L. Hollander and D. J. McCarty, Jr., Philadelphia, Lea & Febiger, 1972, chap. 21, p. 335.

Geigy

Important Note: This drug is not a simple analgesic. Do not administer casually. Carefully evaluate patients before starting treatment and keep them under close supervision. Obtain a detailed history, and complete physical and laboratory examination (complete hemogram, urinalysis, etc.) before prescribing,and at frequent intervals thereafter. Carefully select patients, avoiding those responsive to routine measures, contraindicated patients or those who cannot be observed frequently. Warn patients not to exceed recommended dosage. Short-term relief of severe symptoms with the smallest possible dosage is the goal of therapy. Dosage should be taken with meals or a full glass of milk. Substitute alka capsules for tablets if dyspeptic symptoms occur. Patients should discontinue the drug and report immediately any sign of fever, sore throat, oral lesions (symptoms of blood dyscrasia); dyspepsia, epigastric pain, symptoms of anemia, black or tarry stools or other evidence of intestinal ulceration or hemorrhage, skin reactions, significant weight gain or edema. A one-week trial period is adequate. Discontinue in the absence of a favorable response. Restrict treatment periods to one week in patients over sixty.
Indications: Rheumatoid arthritis, osteoarthritis, bursitis, acute gouty arthritis and rheumatoid spondylitis.
Contraindications: Children 14 years or less; senile patients, history or symptoms of G.I. inflammation or ulceration including severe, recurrent or persistent dyspepsia, history or presence of drug allergy; blood dyscrasias; renal, hepatic or cardiac dysfunction, hypertension, thyroid disease; systemic edema, stomatitis and salivary gland enlargement due to the drug, polymyalgia rheumatica and temporal arteritis; patients receiving other potent chemotherapeutic agents, or long-term anticoagulant therapy.
Warnings: Age, weight, dosage, duration of therapy, existance of concomitant diseases, and concurrent potent chemotherapy affect incidence of toxic reactions. Carefully instruct and observe the individual patient, especially the aging (forty years and over) who have increased susceptibility to the toxicity of the drug. Use lowest effective dosage. Weigh initially unpredictable benefits against potential risk of severe, even fatal, reactions. The disease condition itself is unaltered by the drug. Use with caution in first trimester of pregnancy and in nursing mothers. Drug may appear in cord blood and breast milk. Serious, even fatal, blood dyscrasias, including aplastic anemia, may occur suddenly despite regular hemograms, and may become manifest days or weeks after cessation of drug. Any significant change in total white count, relative decrease in granulocytes, appearance of immature forms, or fall in hematocrit should signal immediate cessation of therapy and complete hematologic investigation. Unexplained bleeding involving CNS, adrenals, and G.I. tract has occurred. The drug may potentiate action of insulin, sulfonylurea, and sulfonamide-type agents. Carefully observe patients taking these agents. Nontoxic and toxic goiters and myxedema have been reported (the drug reduces iodine uptake by the thyroid). Blurred vision can be a significant toxic symptom worthy of a complete ophthalmological examination. Swelling of ankles or face in patients under sixty may be prevented by reducing dosage. If edema occurs in patients over sixty, discontinue drug.
Precautions: The following should be accomplished at regular intervals: Careful detailed history for disease being treated and detection of earliest signs of adverse reactions, complete physical examination including check of patient's weight, complete weekly (especially for the aging) or an every two week blood check, pertinent laboratory studies. Caution patients about participating in activity requiring alertness and coordination, as driving a car, etc. Cases of leukemia have been reported in patients with a history of short- and long-term therapy. The majority of these patients were over forty. Remember that arthritic-type pains can be the presenting symptom of leukemia.
Adverse Reactions: This is a potent drug, its misuse can lead to serious results. Review detailed information before beginning therapy. Ulcerative esophagitis, acute and reactivated gastric and duodenal ulcer with perforation and hemorrhage, ulceration and perforation of large bowel, occult G.I. bleeding with anemia, gastritis, epigastric pain, hematemesis, dyspepsia, nausea, vomiting and diarrhea, abdominal distention, agranulocytosis, aplastic anemia, hemolytic anemia, anemia due to blood loss including occult G.I. bleeding, thrombocytopenia, pancytopenia, leukemia, leukopenia, bone marrow depression, sodium and chloride retention, water retention and edema, plasma dilution, respiratory alkalosis, metabolic acidosis, fatal and nonfatal hepatitis (cholestasis may or may not be prominent), petechiae, purpura without thrombocytopenia, toxic pruritus, erythema nodosum, erythema multiforme, Stevens-Johnson syndrome, Lyell's syndrome (toxic necrotizing epidermolysis), exfoliative dermatitis, serum sickness, hypersensitivity angiitis (polyarteritis), anaphylactic shock, urticaria, arthralgia, fever, rashes (all allergic reactions require prompt and permanent withdrawal of the drug), proteinuria, hematuria, oliguria, anuria, renal failure with azotemia, glomerulonephritis, acute tubular necrosis, nephrotic syndrome, bilateral renal cortical necrosis, renal stones, ureteral obstruction with uric acid crystals due to uricosuric action of drug, impaired renal function, cardiac decompensation, hypertension, pericarditis, diffuse interstitial myocarditis with muscle necrosis, perivascular granulomata, aggravation of temporal arteritis in patients with polymyalgia rheumatica, optic neuritis, blurred vision, retinal hemorrhage, toxic amblyopia, retinal detachment, hearing loss, hyperglycemia, thyroid hyperplasia, toxic goiter, association of hyperthyroidism and hypothyroidism (causal relationship not established), agitation, confusional states, lethargy, CNS reactions associated with overdosage, including convulsions, euphoria, psychosis, depression, headaches, hallucinations, giddiness, vertigo, coma, hyperventilation, insomnia, ulcerative stomatitis, salivary gland enlargement.
(B)98-146-070-J (10/71)

For complete details, including dosage, please see full prescribing information.

GEIGY Pharmaceuticals
Division of CIBA-GEIGY Corporation
Ardsley, New York 10502

BU 10259

(Continued from Page 374)

Until 1971, the staffing requirements of Hill Crest Hospital were met in the traditional manner with the active staff of some six full time psychiatrists providing pure five days per week coverage. Evening and weekend coverage was provided in a traditional manner by a part time psychiatrist and two hospital employed psychiatric residents.

Increasing concern over problems brought on by weekends, holidays and general pressure for leisure time and the inroads these made into the work week were the stimuli for seeking a new time structure. It was noted that much time was spent on Friday in preparing information for transmittal to the weekend staff. With the exception of a few appointments on Saturday morning, the outpatient practice came to a halt at 5 p.m. each Friday. Much of Monday was spent in reviewing and dealing with the changes which occurred in the status of each patient over the weekend. In effect, efficiency was decreased on Fridays and Mondays in preparing for and dealing with weekend problems, leaving only three days, namely Tuesday, Wednesday, and Thursday, per week of peak efficiency.

It was decided that the group psychiatric personnel were not skillful or efficient enough to compensate for this lost clock time. Also, in spite of all efforts to complete information exchange in preparation for the weekend, crises in patient treatment arose frequently on weekends, and a disproportionate number of discharges against medical advice occurred during that two-day period each week.

Methods

Two members of the staff of Psychiatry Associates, P. A., Dr. James A. Greene and Mr. James T. Kemp, were asked to formulate a plan which would provide seven-day week office consultation, outpatient treatment and inpatient care that did not allow any days of the week to be nonproductive to the hospitalized patient. It was also emphasized that the plan should be attractive to prospective as well as active staff members, such as psychiatrists and skilled paramedical personnel who are called on for services seven days weekly.

The plan proposed by Dr. Greene and Mr. Kemp involved the formation of two psychiatric teams, each with two alternating psychiatrists, social workers and representatives of adjunctive therapy. The schedule suggested was for one-half of each team to work ten hours a day for eight consecutive days, followed by six days off. During these six days, the team counterparts would be on their eight day duty cycle (as demonstrated by Table I). On each Monday (noted by the arrows in the table) both divisions would be present together for "change-over" day, at which time all administrative meetings, grand rounds and the exchange of data would be completed and responsibility transferred from each team division to its counterpart.

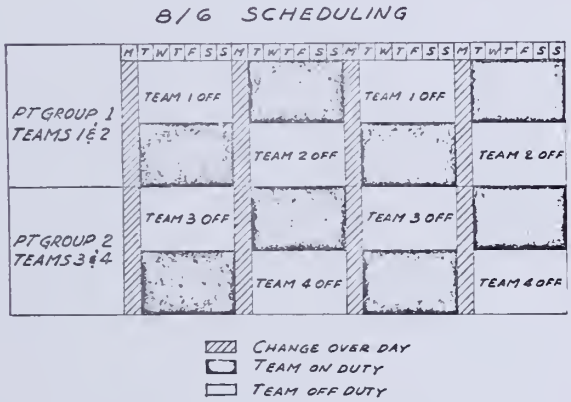


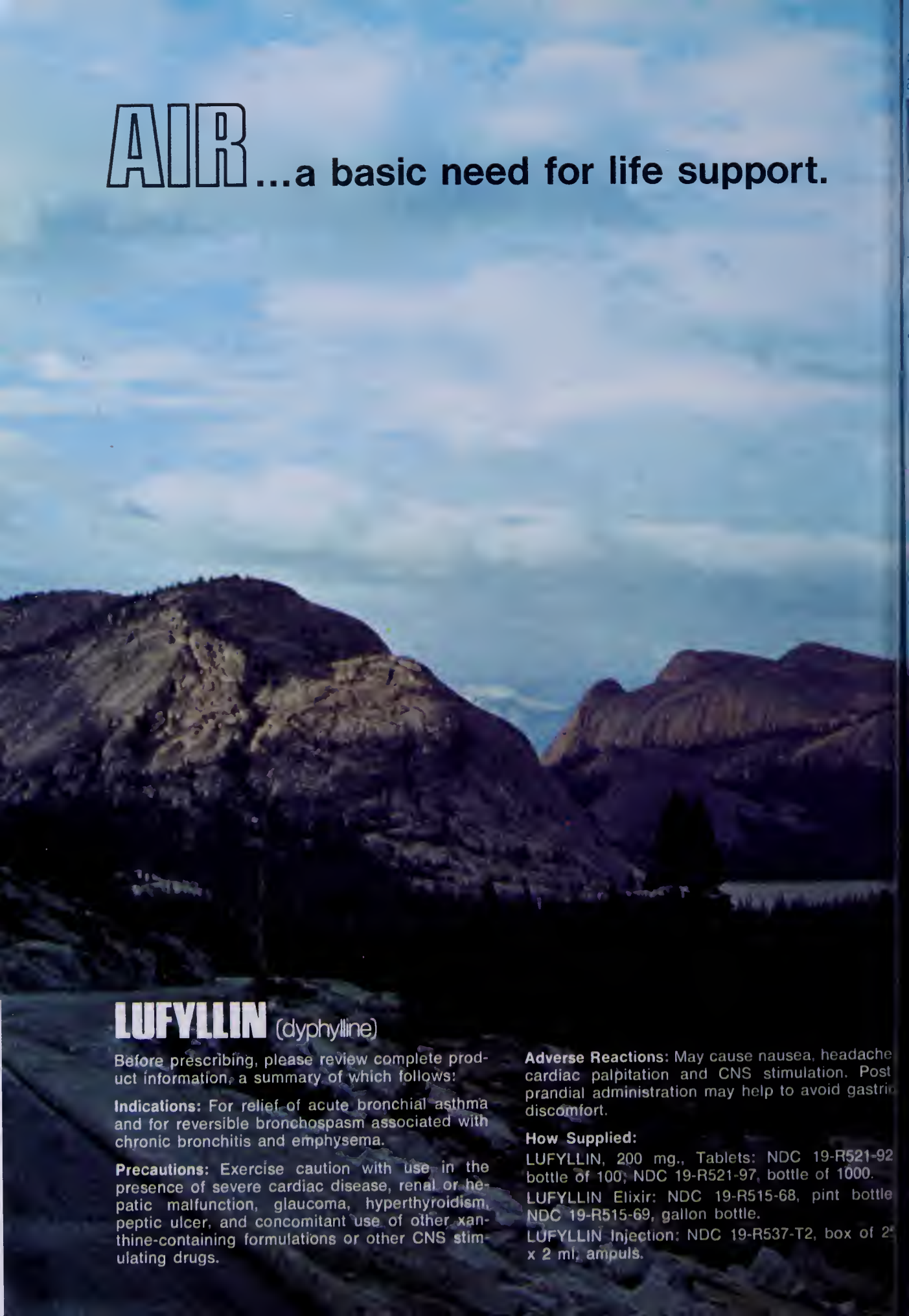
TABLE No. 1

To facilitate planning and avoid confusion, the doctor on duty at the time a patient was first seen, either as an outpatient or in the hospital, would be the team leader responsible for primary planning of the patient's treatment, while the alternate division carried on in his absence and modified plans only as necessary for day to day treatment.

Trial

Psychiatry Associates, P. A. decided to attempt the experiment as did the social

(Continued on Page 380)



LUFYLLIN (dyphylline)

Before prescribing, please review complete product information, a summary of which follows:

Indications: For relief of acute bronchial asthma and for reversible bronchospasm associated with chronic bronchitis and emphysema.

Precautions: Exercise caution with use in the presence of severe cardiac disease, renal or hepatic malfunction, glaucoma, hyperthyroidism, peptic ulcer, and concomitant use of other xanthine-containing formulations or other CNS stimulating drugs.

Adverse Reactions: May cause nausea, headache cardiac palpitation and CNS stimulation. Post prandial administration may help to avoid gastric discomfort.

How Supplied:

LUFYLLIN, 200 mg., Tablets: NDC 19-R521-92 bottle of 100; NDC 19-R521-97, bottle of 1000.

LUFYLLIN Elixir: NDC 19-R515-68, pint bottle NDC 19-R515-69, gallon bottle.

LUFYLLIN Injection: NDC 19-R537-T2, box of 2[illegible] x 2 ml. ampuls.

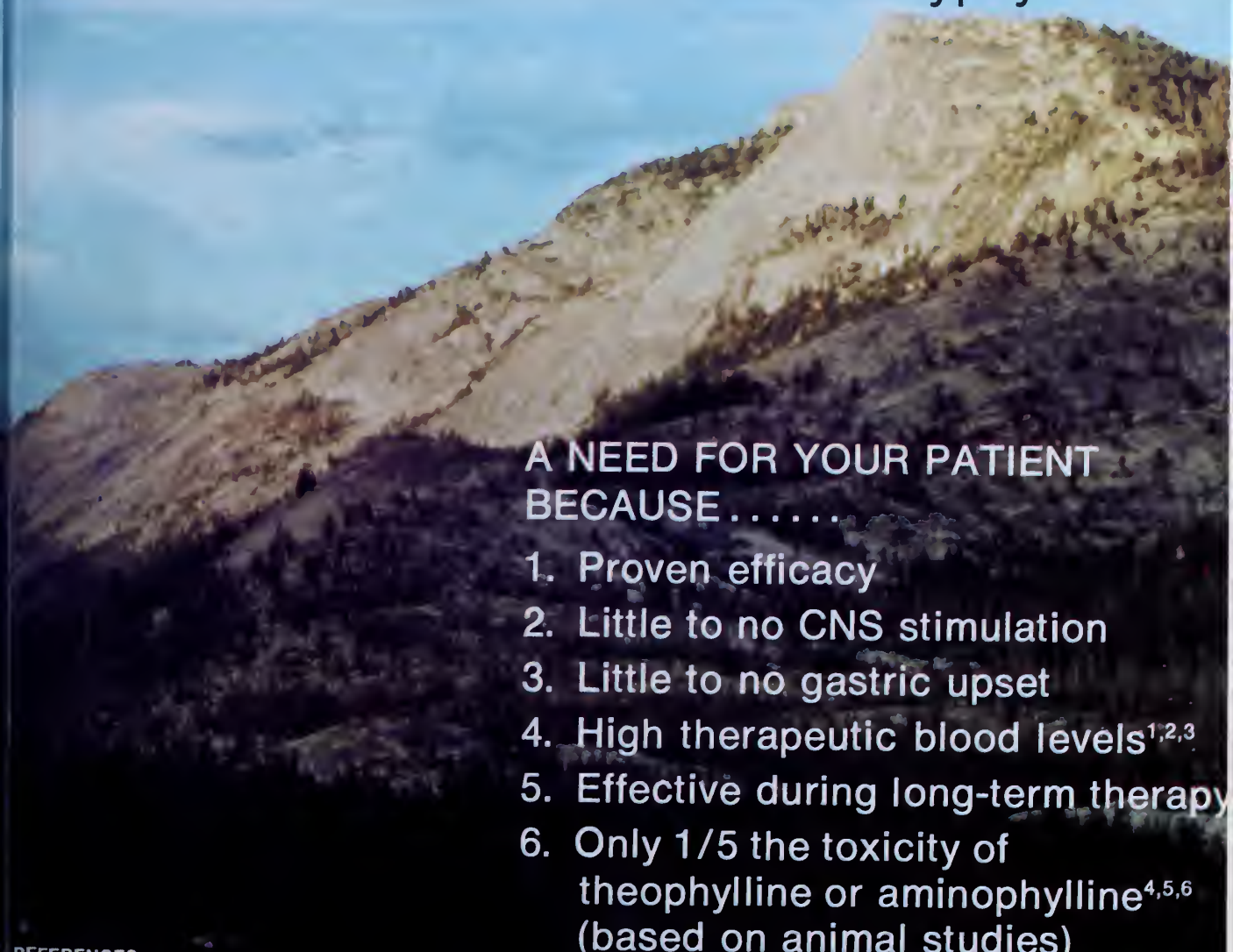
For relief of acute bronchial asthma and for reversible bronchospasm associated with chronic bronchitis and emphysema.

LUFYLLIN® (dyphylline)

...a basic need for the bronchospastic patient.

Tablets: 200 mg dyphylline
Elixir: per 15 ml: dyphylline 100 mg, alcohol 20% v/v

the bronchodilator with a difference...dyphylline.



A NEED FOR YOUR PATIENT BECAUSE.....

1. Proven efficacy
2. Little to no CNS stimulation
3. Little to no gastric upset
4. High therapeutic blood levels[1,2,3]
5. Effective during long-term therapy
6. Only 1/5 the toxicity of theophylline or aminophylline[4,5,6] (based on animal studies)

REFERENCES

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4. McColl, J. D., et al.: **J. Pharm. & Exp. Therp.** 116:343, 1956
5. Quevauviller, Par Andre, et al.: **Presse Med.** 61:1480-1482. 1953.
6. Maney, P. V., et al.: **J. Am. Pharm. Assoc.** 35:266-272, 1946

Mallinckrodt Pharmaceuticals *Linking Chemistry to Medicine®*

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Mallinckrodt Pharmaceutical Division
St. Louis, Missouri 63147

(Continued from Page 377)

workers and adjunctive therapy department on the staff at Hill Crest Hospital. It was considered desirable to have registered nurses on each team, but due to scheduling difficulties, this was not done. A registered nurse was present, however, at each team conference and on team rounds, but none was assigned to a team per se. The experiment was called the time-team project and was set in operation for a six-week trial period. In an effort to build in evaluation techniques, team members and other key personnel were asked to fill out a questionnaire each week in which they gave their opinion as to how the team was functioning and how they, other personnel, patients, and families responded to the project. In addition, a parttime social worker was asked to interview patients, their families, and various hospital personnel and make this data available for evaluation.

At the conclusion of this six-week trial period, the traditional schedule was resumed for a period of two and one-half months before beginning a second modified time-team project. These two trial projects revealed both advantages and disadvantages in the eight/six schedule. From the viewpoint of professional personnel:

Advantages

1) A primary advantage is that seven-day office and hospital operation is available.

2) It was believed that outpatient function and efficiency was improved.

3) Success in recruitment in professional staff was increased significantly, most likely because of the extended period of time-off every other week.

4) In keeping with increasing time of patient exposure to professional staff, the average length of stay for hospitalized patients was reduced roughly 20 per cent.

5) Patients have the advantage of two psychiatric opinions with built-in peer review.

6) Staff function improved as the result of time spent in study, experimental projects and personal growth made possible by longer periods of off time.

7) Percentage of patients discharged against medical advice dropped significantly.

Disadvantages

1) Personal reluctance to have unstructured time-off. In other words, it was difficult to abandon the traditional five-day week structure.

2) All administrative meetings must be on a single day each week if they are to include all members of both staffs. This is a minor consideration.

3) Considerable care must be exercised to avoid polarization of the staff, that is adequate communication between the staff handling the two groups of patients must be maintained at all times.

4) It was felt that some psychotherapy, particularly group therapy sessions, lost continuity when the therapist was off six days. This, however, could be minimized by having a co-therapist who is not on an eight/six schedule and by alternating the other co-therapist, usually a psychiatrist.

Adoption

Following the two six-week trial periods, Psychiatry Associates, P. A., felt that the advantages outweighed the disadvantages, and the eight/six schedule was adopted permanently. Hospital social workers remained on the eight/six schedule as an integral part of the psychiatric teams.

Staff opinion after six months

After six months of operation under the eight/six schedule, the personnel were asked to compare it with the previous five day work week. Sixty-seven per cent considered that the eight/six was superior. Twenty-five per cent considered it inferior; eight per cent

considered it equal to the previous system. Most frequently listed advantages were:

1) Comprehensive weekend coverage. This was listed as an advantage even by those considering the system inferior.

2) Six consecutive days off each two weeks.

3) The longer day enables the professional staff to reach family members in the late afternoons after the usual work hours as well as on weekends.

Disadvantages cited were:

1) Too heavy patient load

2) Difficulty in communication with team counterparts, e.g. there was a conflict of opinion at times between the two physicians regarding treatment planning.

3) Some confusion and hectic atmosphere on the changeover day.

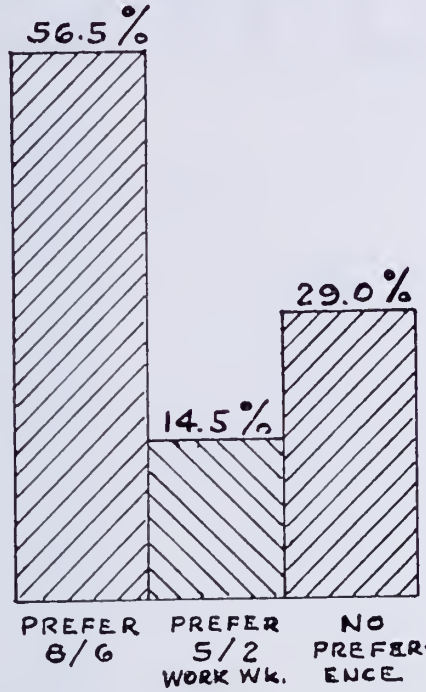
Patient opinion after ten months

Obviously, an extremely important part in change of hospital structure, time or otherwise, is taking into consideration the patient's response. Therefore, after ten months in operation on the eight/six schedule, questionnaires were sent out to all patients who had been discharged since January, 1972, the time at which the schedule was adopted. The results of this questionnaire, which can be seen in Table II, show that 56.5 per cent of patients and families prefer the eight/six schedule over the traditional five/two work week, whereas only 14.5 per cent preferred the regular five/two work week. Some 29 per cent gave no preference.

Results

The eight/six schedule of Psychiatry Associates and Hill Crest Hospital has now been in operation for some 16 months as of the writing of this paper. Generally, it has been very well accepted. One of the most striking results in terms of efficiency of

PATIENT OPINION OF TIME/TEAM SCHEDULE



QUESTIONAIRES SENT TO ALL PARTICIPATING PATIENTS AFTER (10) TEN MONTHS OF 8/6 OPERATION

TABLE No. 2

operation and cost to the patient can be seen in Table III showing length of stay. This table is divided into five parts, encompassing five entirely different periods of time, each

OPERATION 8/6
INFLUENCE ON PATIENT'S AVERAGE LENGTH OF STAY

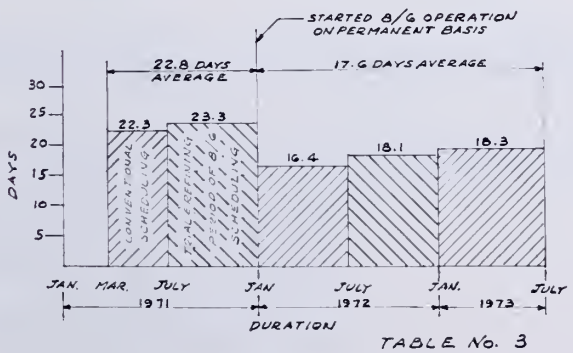


TABLE No. 3

approximately six months in length. The first two periods of time were before the eight/six schedule was started, the last three after the schedule was adopted. As can be seen, the average length of hospital stay has been reduced some five days resulting in tremendous savings to the patient, as noted in Table IV.

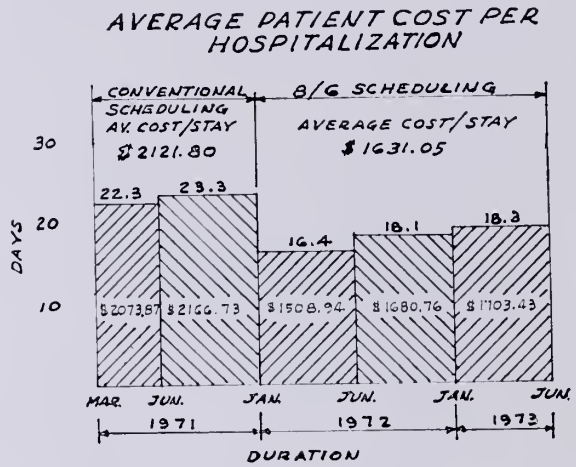


TABLE No. 4

An important consideration in changing any system is the effect of morale on the persons involved. One indication that morale under the eight/six system has been improved is the fact that absenteeism has dropped markedly. As can be seen from Table V, the rate of absenteeism during the last 12 months for persons on the eight/six schedule is less than one day per person, as compared with the control group of supervisory personnel not on the schedule whose rate of absenteeism was four days per person.

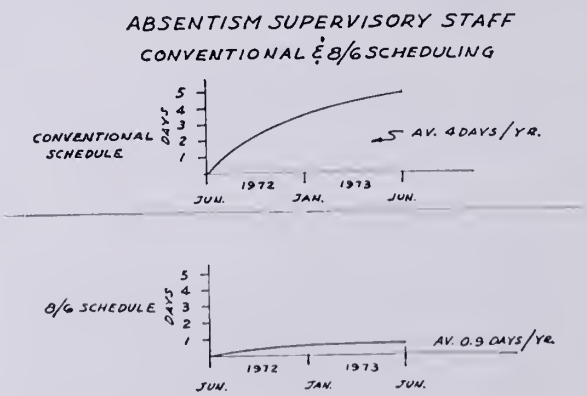


TABLE No. 5

(Continued on Page 384)

PRESCRIBING INFORMATION

Antiminth (pyrantel pamoate) Oral Suspension

Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13μg/ml.) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with pre-existing liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

Dosage and Administration. *Children and Adults:* Antiminth Oral Suspension (50 mg. of pyrantel base/ml.) should be administered in a single dose of 11 mg. of pyrantel base per kg. of body weight (or 5 mg./lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 cc. of Antiminth per 10 lb. of body weight. (One teaspoonful = 5 cc.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

How Supplied. Antiminth is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg. pyrantel base per ml., supplied in 60 cc. bottles and Unitcups™ of 5 cc. in packages of 12.

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A single dose of Antiminth (1 cc. per 10 lbs. of body weight, 1 tsp./50 lbs.—maximum dose, 4 tsp.=20 cc.) offers highly effective control of *both* pinworms and roundworms.

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equivalent to 50 mg. pyrantel/ml.

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Please see prescribing information on facing page.

(Continued from Page 382)

The increased number of days off also resulted in more professional staff personnel taking part in continuing education programs. For example, one physician has taken part in some five different post-graduate programs in various areas of the country over the past year. Also, a number of physicians have had time to do some limited teaching at the nearby University of Alabama Medical School, where all five psychiatrists are on the voluntary staff.

One point which has been neglected thus far, and which was demonstrated in preliminary findings as one reason for adopting the eight/six schedule, is the prevention or reduction in the number of discharges against medical advice, most of which tended to occur on weekends. As can be noted from the experimental time period, a significant decrease in the number of discharges against medical advice occurred. More specifically, 26.5 per cent of the patients during the control period were discharged against medical advice, whereas, 11.6 per cent were discharged against medical advice during the project. This decrease could be attributed to the fact that problems which arose on the weekend were dealt with immediately by team members rather than having them postponed until Monday, as had previously been the case.

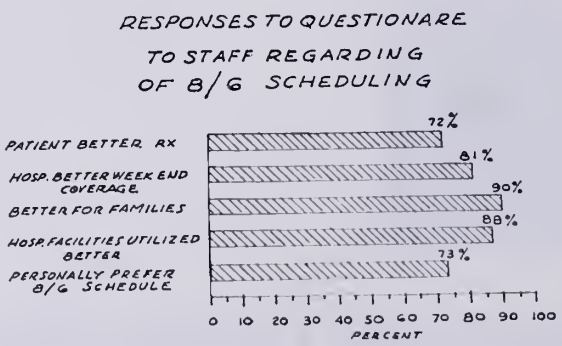


TABLE No. 6

Of the five psychiatrists now on the staff, four are acting as team leaders. The other psychiatrist, who is medical director of the hospital, is working on a regular five/two schedule for administrative purposes, as well as to provide continuity. In addition, he treats outpatients with individual psychotherapy, and both inpatients and outpatients in group therapy. When it is necessary for one of the team physicians to be absent during his duty time, the senior psychiatrist rearranges his schedule in order to act as team physician during the absence.

The secretarial staff of Psychiatry Associates, P. A. works on the eight/six schedule and all routine office activities are carried on seven days per wek.

In conclusion, the eight/six schedule has proved an effective tool in the efficient structuring of time. It has resulted in better overall utilization of manpower and equipment, which in the final analysis means better medical care at less cost to the patients.

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3. James T. Kemp, A. C. S. W., James A. Greene, M. D., and Mr. Robert V. Sanders, *Variation of Four Day Work Week*, January, 1972.

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NOTICE OF CHANGE

In the June issue of the Journal, all references to H-Influenza Vaccine that appear in the article by Andrew M. Brown, M. D., Gadsden, entitled "Management of Herpes Zoster With H-Influenza Vaccine, A Preliminary Report," should be changed to read simply Influenza Vaccine, since the material refers to the virus and not the bacterial vaccine.

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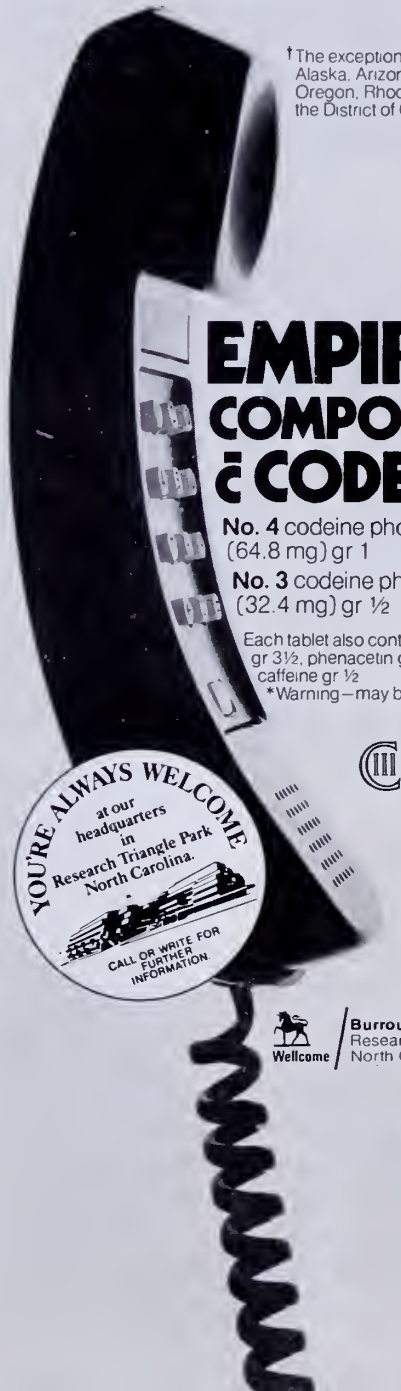
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Book Review

In Defense Of The Body, An Introduction To The New Immunology by Roger Lewin, Ph. D., Anchor Press/Doubleday, Garden City, New York, 1974. 146 pgs. Price: $2.50.

This is a relatively short, but concise study into molecular immunology, better known as the new immunology. Dr. Lewin, a biochemist, explores the secrets of the immune system's success: its memory, its specificity and its ability to recognize foreignness.

The author also tries to understand its failures: in not being aggressive enough against cancer; being too aggressive both in the unfortunate cases of autoimmune diseases and in making life awkward for the transplant surgeon; and in being occasionally defective, thus causing immunodeficiency diseases.

Dr. Lewin, in this paperback edition, blends charts and photographs with his rapid, nononsense commentary to produce an exciting look at the new immunology story, a story moving so fast that it is almost impossible to keep pace with its unfolding.

Cardiac Arrest and Resuscitation, Fourth Edition, by Hugh E. Stephenson, Jr., M. D., C. V. Mosby Company, St. Louis, Mo., 1974. 998 pgs. Price: $45.50

As stated in the foreward section, this authoritative volume on cardiac arrest and resuscitation and the great activity in this field has had such a status in the past to warrant an up-to-date edition for publication. This edition supplements and updates material from each of the three preceding volumes.

With 379 illustrations to highlight the indepth and informative chapters prepared by Dr. Stephenson, this volume is well-written, clear and concise. Some of the new and inclusive chapters presented deal with preservation of the heart and on resuscitation of transplanted hearts. Again, several of the favorite chapters from previous editions are repeated, with modified and updated perspective.

Vanderbilt University Offers Genetic Counselling And Testing Services

An inter-departmental facility, the Prenatal Birth Defects Prevention Clinic, has been established at Vanderbilt University Hospital, Nashville, Tennessee. The center is staffed by members of the departments of Obstetrics and Gynecology, Pediatrics and Medicine.

It is the purpose of the center to offer appropriate genetic counselling and testing to parents who have had defective or deformed children and who fear that their next offspring might be similarly affected.

The center is extending diagnostic and therapeutic services to physicians caring for women who are contemplating pregnancy and who are reluctant to become pregnant because of the fear of birth defects, or women who are already pregnant and may fall in the high risk category for untreatable genetic diseases in their families. The center asks that the physician particularly consider using the chromosome studies service for pregnant women over the age of 35, who are of high risk for Mongolism and other abnormalities.

Due to technological advances in tissue culture, it is now possible to perform chromosomal and enzymatic analysis on fetal cells in amniotic fluid obtained by anmiocentesis. If a fetus is found to be affected, upon recommendation of the Medical Advisory Board of the center, medical termination of the pregnancy may be offered to the patient.

Among the disorders to which the center direct its attention are:

A. Chromosomal disorders

1. Down's syndrome
2. Other trisomies
3. Partial monosomies
4. Translocations
5. Deletions
6. Certain forms of Mosaicism

B. Sex-linked disorders

1. muscular dystrophy (Duchenne)
2. hemophilia A and B
3. other rare sex-linked conditions

C. Enzymatic and Metabolic Diseases

A reasonable fee will be charged for these services; however, no patient will be refused care due to inability to pay. Referral of the patient back to the original physician is contemplated.

Should a physician feel that any of his patients might benefit from this service, he may contact the center by telephone, (615) 322-7311, or write to the following address:

Vanderbilt University
Department of Obstetrics
and Gynecology
Nashville, Tennessee 37232

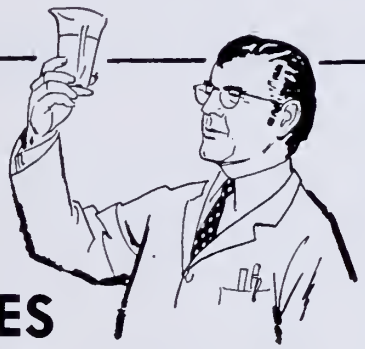
Study of Neurology Offered To Internal Medicine Specialists

The American College of Physicians (ACP) will sponsor a three-day postgraduate course entitled "Advances In Neurology" on January 22-24, 1975, in Seattle, Washington.

The course, held in conjunction with the Virginia Mason Medical Center, is planned to provide a problem-oriented approach to converting a symptomatic problem into a specific diagnosis in the management of neurological disorders by the practicing physician.

For information and registration, write: Registrar, Postgraduate Courses, ACP, 4200 Pine Street, Philadelphia, Pa. 19104.

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surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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CONTRAINDICATIONS: Aminophylline/Theophylline is contraindicated in the presence of severe cardiac arrhythmias and patients with massive myocardial damage. Ephedrine, in presence of severe heart disease, extreme hypertension, and in hyperthyroidism. Phenobarbital, in porphyria and in patients with known phenobarbital sensitivity. Potassium Iodide, in pregnancy (to protect the fetus against possible iodine-induced depression of thyroid activity), in tuberculosis (produces gumma dissolution), and in acne; also in the presence of known iodide sensitivity. PRECAUTIONS: Aminophylline/Theophylline should be avoided in patients with massive myocardial damage and/or severe cardiac arrhythmias. In children, overdose may cause vomiting, cardiac arrhythmias, and severe agitation. Ephedrine should be used with caution in the presence of severe cardiac disease, particularly arrhythmias and angina pectoris; avoid in hyperthyroidism and severe hypertension. Phenobarbital may be habit-forming. Avoid overdosage. Potassium Iodide: Discontinue in the presence of skin rash, swelling of the eyelids and severe frontal headache. Long use may cause goiter. ADVERSE REACTIONS: Aminophylline/Theophylline may cause nausea, cardiac arrhythmias, and aggravate severe myocardial disease. It may cause headaches and tachycardia. Vomiting and dizziness are not uncommon. Ephedrine: In patients hypersensitive to CNS stimulation, ephedrine may cause nervousness, tachycardia, extrasystole and ventricular arrhythmias. May cause urinary retention, especially in the presence of partial prostatic obstruction. Psychoneurosis may be aggravated. Pre-existing anginal pain will be aggravated. Phenobarbital may produce severe skin rash. Avoid overdosage. May be habit-forming. Potassium Iodide may cause nausea. Over very long period of use, iodides cause goiter. Discontinue if patient develops skin rash, eye irritation, eyelid swelling, or severe frontal headache.

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THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA · 1873 ·

PRESIDENT'S PAGE

J. GARBER GALBRAITH, M.D., PRESIDENT



The 114th Annual Session of the Medical Association of the State of Alabama will be held April 17-19, 1975, at the Parliament House Motor Hotel in Birmingham. It is not too early to begin planning now to attend the entire three-day convocation, which may prove to be the most momentous in the long and honorable history of this Association.

Totally new concepts in the health care delivery system are being developed and one may logically assume that the individual physician will be the focal point of any and all innovations, because health care delivery begins and ends under his direct supervision and responsibility.

From the opening session, through the orientation program, reference committee hearings, scientific programs and the annual meeting of the College of Counsellors and House of Delegates on the final day, there will be information of urgent importance for every member of this Association. As President, I wish to invite, in fact beseech, every member who possibly can be absent from his practice to attend as many of these sessions as possible.

Particularly do I urge our newly-indoctrinated members to remain throughout the session. In the past, many have departed immediately following the orientation program, but this year there will be presented essential information about the organization and operation of MASA at every session.

This will be a working convention, but there will also be time reserved for renewing old friendships and recreation.

The American Medical Association will send a site survey team to evaluate our carefully-planned scientific program on Friday, April 18. If it is deemed acceptable, MASA will then be accredited to devise and present its own programs of continuing medical education throughout the State. This will greatly benefit our membership for it means that you can keep abreast of new techniques and procedures in patient care without traveling great distances, with resultant loss of time from your practices.

It should be borne in mind that the Annual Session is intended solely for the benefit of the members of this Association. Many hours and hundreds of dollars are expended by your officers, committees and staff to keep you fully informed of all those matters of vital concern to you.

So I urge you to circle the dates April 17, 18 and 19 now. Come to Birmingham and participate with us in our 1975 Annual Session.

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AMA-ERF

At the conferences sponsored by the National Auxiliary which I have attended in recent months, the economic squeeze has been very apparent—the squeaks were audible. The National Woman's Auxiliary has very dedicated officers and chairmen, but the paid staff is very small. We depend on the AMA for legal and financial advice. We all know the financial squeeze this organization is in because of the many services they offer to the doctors and the patients of this country. They have had to levy an assessment of $60 on all members. Their experts have been reviewing all their functions and their services to the Woman's Auxiliary have been carefully examined. They have concluded that our services in two fields are indispensable—AMA-ERF (American Medical Association Education and Research Foundation) and legislation.

It is possible that many physicians believe that the AMA-ERF is exclusively a function of the Woman's Auxiliary. Actually, we only assist the AMA in this respect. AMA-ERF is not a division or department of the AMA but a separate organization, although its Board of Directors also serve as the Board of Trustees of the AMA. Various departments of the AMA perform staff duties for the Foundation at no cost.

To put a high priority on this organization shows how valuable it is to medicine in this country. To gain better insight into AMA-ERF programs, the following are some of the most frequently asked questions and answers about the Foundation:

Q: **WHY SHOULD WE CONTRIBUTE TO AMA?**

A: For several reasons. First, the AMA-ERF is separately organized from the AMA. We depend entirely on contributions from physicians, the Woman's Auxiliary, industry and the general public to carry on the work of the Education and Research Foundation. We do not ask for federal funds, nor do we employ professional fund-raisers. Secondly, AMA-ERF is an established organization staffed by responsible executives who will make prudent use of your donations. Third, the programs of AMA-ERF are carefully conceived and conducted. They are designed to fill today's urgent needs in the field of medical education. You can be sure that your money is going into a worthwhile cause when you contribute to AMA-ERF.

Q: **WHY DOES THERE HAVE TO BE AN AMA-ERF? CAN'T THE AMA ITSELF OPERATE THESE PROGRAMS?**

A: The Foundation affords physicians, their wives and others the opportunity to contribute to significant programs in medical education which require financing beyond the budgetary capabilities of the AMA itself. Also, contributions to the Foundation are deductible for income tax purposes.

(See next Page)

PRESIDENT—Mrs. Donald J. O'Brien/PRESIDENT-ELECT—Mrs. William Hughes/FIRST VICE-PRESIDENT—Mrs. J. E. Dunn, Jr./NORTHWEST DISTRICT VICE-PRESIDENT—Mrs. Charles Howell/NORTHEAST DISTRICT VICE-PRESIDENT—Mrs. Roland Murphree/SOUTHWEST DISTRICT VICE-PRESIDENT—Mrs. Charles Weaver/SOUTHEAST DISTRICT VICE-PRESIDENT—Mrs. Robert Foy/WAMASA EDITOR—Mrs. William L. Smith.

Q: **HOW DO AMA-ERF FUNDS DIFFER FROM ENDOWMENT PROGRAMS AND GOVERNMENT FUNDS THAT MEDICAL SCHOOLS HAVE AT THEIR ACCESS?**

A: Much of this money is earmarked for special projects, while AMA-ERF funds are not restricted and flexible. AMA-ERF funds are of extreme importance to medical school deans, because they can be used as they see fit to solve their most pressing financial problems at the moment.

Q: **IS THE AMA-ERF LOAN GUARANTEE PROGRAM AS COMPREHENSIVE AS THE GOVERNMENT'S?**

A: More so, in some respects. For instance, we include hospital interns and residents as well as medical students. Many of these young doctors need money even more than students, because they are trying to support a family and repay school loans at the beginning point in their career.

Q: **HOW ARE AMA-ERF FUNDS DISBURSED?**

A: Contributions to the Funds for Medical Schools program of AMA-ERF are distributed annually in March of the year following donation. Money designated for a particular medical college is presented to the school plus an equal share of all undesignated funds. Money contributed to the Loan Guarantee Fund is held as a guarantee for repayment of loans. Each dollar in the fund puts another $12.50 to work in loans made by a commercial bank. As the Loan Guarantee Fund increases from contributions and appreciation, more money becomes available for guaranteeing future loans. As loans are repaid, money in the guarantee fund becomes available once again to guarantee still more loans.

Q: **WHEN WE MAKE A DONATION TO THE MEDICAL EDUCATION FUND, HOW COME WE CANNOT DESIG-**

(Continued on Page 402)

Rondomycin®
(methacycline HCl)

CONTRAINDICATIONS: Hypersensitivity to any of the tetracyclines.
WARNINGS: Tetracycline usage during tooth development (last half of pregnancy to eight years) may cause permanent tooth discoloration (yellow-gray-brown), which is more common during long-term use but has occurred after repeated short-term courses. Enamel hypoplasia has also been reported. **Tetracyclines should not be used in this age group unless other drugs are not likely to be effective or are contraindicated.**
Usage in pregnancy. (See above **WARNINGS** about use during tooth development.)
Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.
Usage in newborns, infants, and children. (See above **WARNINGS** about use during tooth development.)
All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrease in fibula growth rate observed in prematures given oral tetracycline 25 mg/kg every 6 hours was reversible when drug was discontinued.
Tetracyclines are present in milk of lactating women taking tetracyclines.
To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The anti-anabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.
Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.
PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.
In venereal disease, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.
Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.
In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).
Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.
Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.
ADVERSE REACTIONS: Gastrointestinal (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in the anogenital region.
Skin: maculopapular and erythematous rashes; exfoliative dermatitis (uncommon). Photosensitivity is discussed above (See **WARNINGS**).
Renal toxicity: rise in BUN, apparently dose related (See **WARNINGS**).
Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.
Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.
Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.
Over prolonged periods, tetracyclines have been reported to produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.
USUAL DOSAGE: Adults—600 mg daily, divided into two or four equally spaced doses. More severe infections: an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. Gonorrhea: In uncomplicated gonorrhea, when penicillin is contraindicated, 'Rondomycin' (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule: 900 mg initially, followed by 300 mg q.i.d. for a total of 5.4 grams.
For treatment of syphilis, when penicillin is contraindicated, a total of 18 to 24 grams of 'Rondomycin' (methacycline HCl) in equally divided doses over a period of 10-15 days should be given. Close follow-up, including laboratory tests, is recommended.
Eaton Agent pneumonia: 900 mg daily for six days.
Children—3 to 6 mg/lb/day divided into two to four equally spaced doses.
Therapy should be continued for at least 24-48 hours after symptoms and fever have subsided.
Concomitant therapy: Antacids containing aluminum, calcium or magnesium impair absorption and are contraindicated. Food and some dairy products also interfere. Give drug one hour before or two hours after meals. Pediatric oral dosage forms should not be given with milk formulas and should be given at least one hour prior to feeding.
In patients with renal impairment (see **WARNINGS**), total dosage should be decreased by reducing recommended individual doses or by extending time intervals between doses.
In streptococcal infections, a therapeutic dose should be given for at least 10 days.
SUPPLIED: 'Rondomycin' (methacycline HCl): 150 mg and 300 mg capsules; syrup containing 75 mg/5 cc methacycline HCl.

Before prescribing, consult package circular or latest PDR information.

Rev. 6/73

WALLACE LABORATORIES
CRANBURY, NEW JERSEY 08512



When the focus is on bronchitis due to susceptible strains of *H. influenzae* and pneumococci*

Rondomycin® 300 mg. Capsules

[methacycline HCl]

Delivers from the very first dose:

Studies show that after the first dose serum levels rapidly rise above minimum *in vitro* inhibitory concentrations

*Since many strains are known to be resistant, routine sensitivity testing is recommended.

The Role of the Detail Man

Opinion & Dialogue

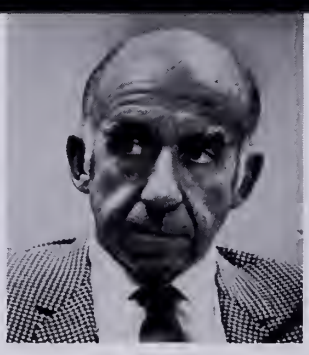


Dr. Willard Gobbell
Family Physician
Encino, California

"I may be prejudiced, but I am very much in favor of the detail men I meet. Most of them are knowledgeable about the drugs they promote and can be a great help in acquainting me with new medication."

Family Physician's Perception

I think that most general practitioners in this area feel as I do about the detail man. Over the years I have gotten to know most of the men who visit me regularly and they in turn have become aware of my particular interests and the nature of my practice. They, therefore, limit their discussion as much as possible to the areas of interest to me. Since I usually see the same representative again in future visits, it is in his best interest to supply me with the most honest, factual, as well as up-to-date information about his products.



Dr. Jeremiah Stamler
Chairman
Department of Community Health and Preventive Medicine, and Dingman Professor of Cardiology
Northwestern University Medical School

"In the total picture of dealing with health problems in this country, there is a potential for detail men to play a meaningful role."

The Positive Influence

My contact with representatives and salesmen of the pharmaceutical industry is the type of contact that people in a medical center, research people, and academic people have and that's in all likelihoo on a somewhat different level from that of the practicing physician.

Let me touch on how I personally perceive the role of the sales representative. These men reach large numbers of health professionals. Thus they could be—and at times actually are—disseminators of useful information. They could consistently serve a real educational function in their ability to discuss their products.

At present they do distribute printed material, brochures and pamphlets—some of it scientifically sound and therefore truly useful—as well as some excellent films produced by the pharmaceutical industry. When they function in this

s He a Source of Information?

Yes, with certain reservations. The average sales representative has a great fund of information about the drug products he is responsible for. He is usually able to answer most questions fully and intelligently. He can also supply reprints of articles that contain a great deal of information. Here, too, I exercise some caution. I usually accept most of the statements and opinions that I find in the papers and studies which come from the larger teaching facilities. It goes without saying that a physician should also rely on other sources for his information on pharmacology.

raining of Sales Representatives

Ideally, a candidate for the position as a sales representative of a pharmaceutical company should be a graduate pharmacist who has a questioning mind. I don't think this is possible in every case, and so it becomes the responsibility of the pharmaceutical company to train these individuals comprehensively. It is of very great importance that the detail man's knowledge of the product he represents be constantly reviewed as well as updated. This phase of the sales representative's education should be a major responsibility of the medical department of the pharmaceutical company.

I am certain that most of these companies take special care to give their detail men a great deal of information about the products they produce—information about indications, contraindications, side effects and precautions. Yet, although most of the detail men are well informed, some, unfortunately, are not. It might be helpful if sales representatives were reassessed every few years to determine whether or not they are able to fulfill their important function. Incidentally, I feel the same way about periodic assessments of everyone in the health care field, whether they be general practitioners, surgeons or salesmen.

Value of Sampling

I personally am in favor of limited sampling. I do not use sampling in order to perform clinical testing of a drug. I feel that drug testing should rightly be left to the pharmacology researcher and to the large teaching institutions where such testing can be done in a controlled environment.

I do not use samples as a "starter dose" for my patients. I do, however, find samples of drugs to be of value in that they permit me to see what the particular medication looks like. I get to see the various forms of the particular medication at first hand, and if it is in a liquid form I take the time to taste it. In that way I am able to give my patients more complete information about the particular medications that I prescribe for them.

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apacity they are indeed useful; articularly in the fact that they isseminate broadly based educaonal material and serve not just s "pushers" of their drugs.

he Other Side of the Coin

Obviously, the pharmaceutical companies are not producing all his material as a labor of love—hey are in the business of selling roducts for profit. In this regard he ambitious and improperly motiated sales representative can xert a negative influence on the racticing physician, both by preenting a one-sided picture of his roduct, and by encouraging the ractitioner to depend too heavily n drugs for his total therapy. In hese ways, the salesman has often istorted objective reality and ndermined his potential role as an ducator.

he Industry Responsibility

Since the detail man must be n information resource as well as representative of his particular harmaceutical company, he hould be carefully selected and thoroughly trained. That training, perforce, must be an ongoing one. There must be a continuing battle within and with the pharmaceutical industry for high quality not only in the selection and training of its sales representatives, but also in the development of all of its promotional and educational material.

The industry must be ready to accept constructive as well as corrective criticism from experts in the field and consumer spokesmen, and be willing to accept independent peer review. The better educated and prepared the salesman is, the more medically accurate his materials, the better off the pharmaceutical industry, health professionals and the public—*i.e.*, the patients—will be.

Physician Responsibility

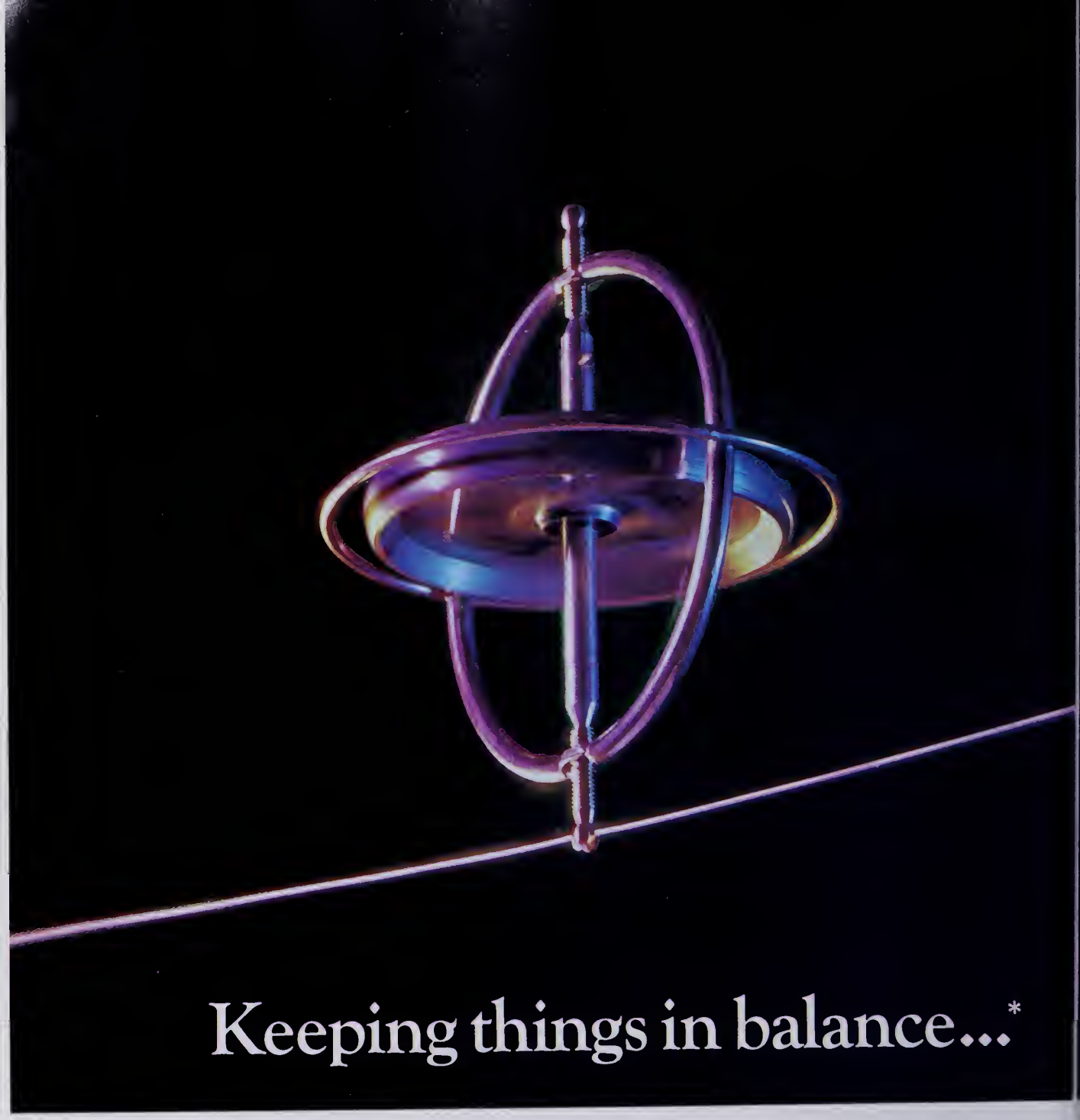
The practicing physician is in constant need of up-dated information on therapeutics, including drugs. He should and does make use of drug information and answers to specific questions supplied by the pharmaceutical representative. However, that information must not be his main source of continuing education. The practitioner must keep up with what is current by making use of scientific journals, refresher courses, and information received at scientific meetings.

The practicing physician not only has the right, but has the responsibility to demand that the pharmaceutical company and its representatives supply a high level of valid and useful information. I feel certain that if such a high level is demanded by the physician as well as the public, this demand will be met by an alert and concerned pharmaceutical industry.

From my experience, my impression is that sectors of the pharmaceutical industry are indeed ethical. I challenge the industry as a whole to live up to that word in its finest sense.

Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D.C. 20005





Keeping things in balance...*

Antivert®/25 Tablets
(25 mg. meclizine HCl)

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over [illegible] mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show [illegible] palate. Congeners of meclizine have caused cleft palate in species other than th[illegible]

Meclizine HCl is contraindicated in individuals who have shown a prev[illegible] hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this [illegible] patients should be warned of this possibility and cautioned against driving a [illegible] operating dangerous machinery.

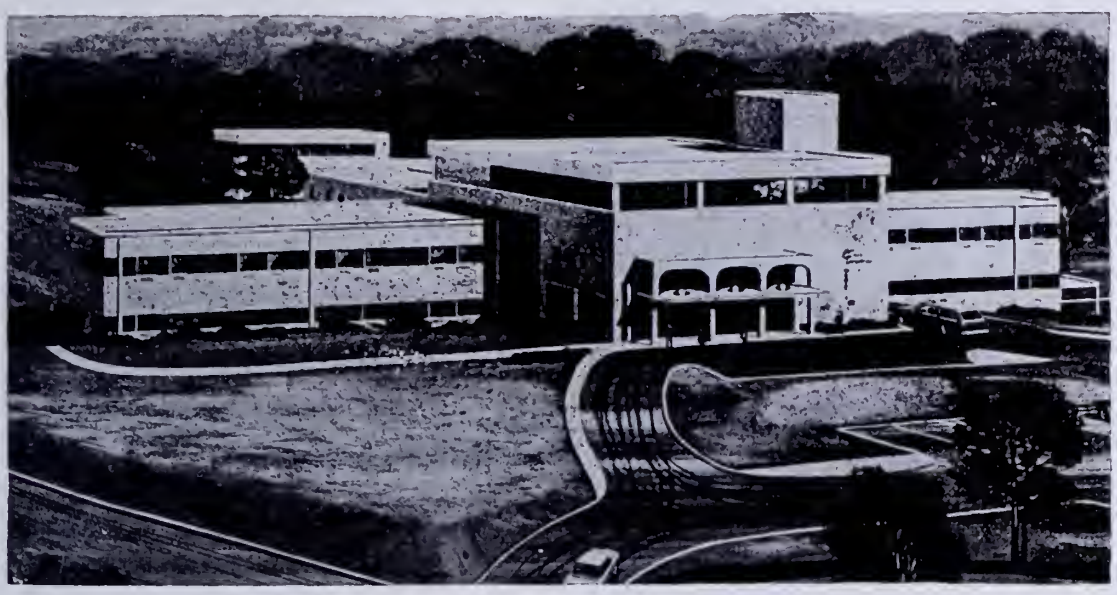
Usage in Children. Clinical studies establishing safety and effectiveness in chil[illegible] have not been done, therefore, usage is not recommended in the pediatric age gr[illegible]

Usage in Pregnancy. See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

ROERIG Pfizer

A division of Pfizer Pharmaceu[illegible]
New York, New York 10017



Hill Crest HOSPITAL

For Intensive Treatment of Psychiatric Disorders

This 113-bed non-governmental psychiatric hospital provides modern facilities for diagnosis and treatment of patients with all degrees of illness, including those who show severely disturbed behavior. Alcoholic and drug abuse patients are also accepted.

In addition to care by psychiatrists and by consultants in all medical specialties, the treatment program includes occupational, recreational, and physical therapy, social services, and tutoring. Emphasis is on short-term, intensive treatment of voluntary patients.

Hill Crest is a member of: American Hospital Association, National Association of Private Psychiatric Hospital, Alabama Hospital Association, Birmingham Regional Hospital Council.

Accredited by Joint Commission on Accreditation of Hospitals. Medicare Approved. Blue Cross Participating Hospital.

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F. Joseph Nuckols, M. D.
James A. Greene, M. D.
Charles W. Moorefield, M. D.
Otto F. Eisenhardt, M. D.

ADMINISTRATOR:

Robert V. Sanders

HILL CREST HOSPITAL

Hill Crest Foundation, Inc.

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PHONE: 205-836-7201



114th Annual Session
of the

MEDICAL ASSOCIATION OF THE STATE OF ALABAMA

April 17 - 19, 1975
Parliament House
Birmingham, Alabama

Scientific Sessions • Scientific Exhibits • Reference Committee Conferences • Orientation Program • ALAPAC Luncheon • Jerome Cochran Lecture • Annual Business Session • President's Prayer Breakfast • Awards Dinner • Special Entertainment • Alumni Parties

PLAN NOW TO ATTEND

(Continued From Page 396)

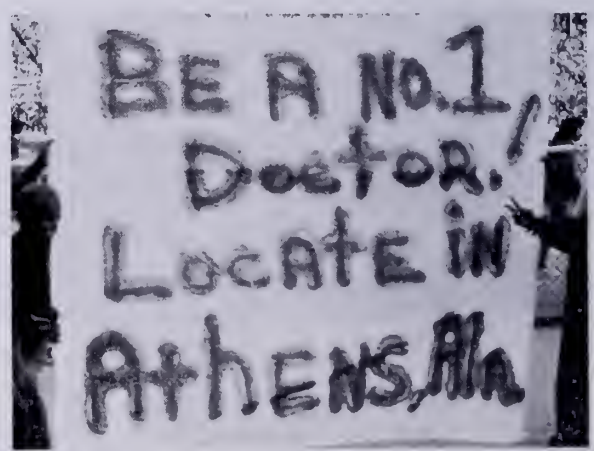
NATE A SPECIFIC DEPARTMENT AT THE MEDICAL SCHOOL?

A: AMA-ERF was specifically designed to grant funds to the medical schools on an unrestricted basis. This meets those needs of the school which are not met when limitations are put on contributions as to just how the school can use them. If the donor wants the contribution to be used for a specific purpose or department, then the contribution should be made directly to the medical school.

Q: **ARE THE SONS AND DAUGHTERS OF PHYSICIANS ELIGIBLE FOR AMA-ERF LOANS?**

A: Any medical student or hospital trainee is eligible to apply for a loan under the AMA-ERF Loan Guarantee Program. The children of physicians are presently receiving many loans under this program.

If any physician in Alabama cares to make a donation; he may do so through his county or state auxiliary AMA-ERF chairman, or send his contribution directly to AMA-ERF, AMA Headquarters, Chicago, Illinois 60610.



PHYSICIAN RECRUITMENT AT LEGION FIELD—Making use of each opportunity to secure physicians for their county, the Limestone County Physicians' Search Committee came up with the ingenious idea of displaying a recruitment banner during the Alabama-Auburn football game of November 29, 1974, which was broadcast on national television. The committee reports that its primary thrusts of recruitment have been in using MASA's Physician Placement Service and continuing close contact with their four local young men who are currently in residency programs.

The National Health Service In Great Britain— Revolt In The Ranks

Duncan R. Walker, M.B., F.R.C.S.
Department of Surgery
UAB Medical Center
Birmingham, Alabama

K. Michael Pagliero, M.B., B.S., F.R.C.S.
Department of Surgery
UAB Medical Center
Birmingham, Alabama

EDITOR'S NOTE: *Dr. Walker (Bromptom Hospital) and Dr. Pagliero (Hammersmith Hospital) are undergoing cardiothoracic surgical training programs in London, England. They have been released temporarily for a period of research under Dr. John W. Kirklin, Birmingham. The final section of their work (Part II) will be featured in the March issue of the* Journal.

Part I

"The discoveries of the healing science must be the inheritance of all . . . our policy is to create a national health service in order to ensure that everybody in the country, irrespective of means, age, sex or occupation, shall have equal opportunities to benefit from the best and most up-to-date medical and allied service available."

Winston S. Churchill
March, 1944

Introduction

In Western countries, illness is treated, hospitals administered and medical practice conducted along very similar lines. When it comes to paying for medical services, each country differs and a variety of arrangements for payment have been, and are being, tried. In 1948, the British National Health Service (N. H. S.) set out to provide free medical treatment, in all its forms, for the whole community: there is no parallel to such a social commitment in the Free World. The idea of destroying every economic barrier between doctor and patient was revolutionary, but must be seen in the context of the radical social climate which existed in Britain at that time.

Development

The N. H. S. did not spring from an outgrowth of a previous health care program, but it did have roots of a kind in the national health insurance scheme which had been instituted in 1911 by the then Chancellor of The Exchequer, Lloyd George. This scheme had developed, because of social pressures, from the old "sick clubs" which had been organized among the workers by trade unions and well-meaning employers. The shift from rural to urban industrial life, which characterised the later part of the nineteenth century, had created major medical and social problems and it was in the atmosphere of tenement dwelling and polluted cities that these primitive health insurance schemes were born: for a few pence per head, certain doctors undertook to provide medical care for the workers.

This scheme did not include the dependents of the workers and in addition to applying an income limit, provided benefits across only a limited range of medical care. There was, for example, no provision of any kind for specialized treatment.

The main arguments for implementation of the N. H. S. were that the existing facilities were badly distributed amongst regions and social groups, that the facilities were badly administered and uncoordinated and that all existing facilities were inadequate. Implicit in this was the idea that equality of medical services was the desired aim. It was believed that increased expenditure on health services would be a sound economic investment, as by reducing illness it would

increase production. In addition, nothing short of a centrally controlled system could provide social justice in the form of identical, and the best possible, medical services for each and every citizen.

Structure

The Service comprised of three parts at its inception:

A. Hospital and specialist services

B. Local health authority services

C. Executive council services

Hospital and Specialist Services

A multitude of related and independent voluntary hospitals were combined with those run by local authorities into the National Service. The Exchequer finances the branch which accounts for 80 per cent of all money spent in the N. H. S. The hospitals are staffed by junior doctors undergoing postgraduate training under the overall supervision of consultant specialists. These juniors spend 5-12 years as "registrars" and "senior registrars" before being appointed as an N. H. S. Consultant. During this period, they need to have passed a post-graduate degree to pursue a specialized career. These degrees (F.R.C.S. for surgeons, M.R.C.P. for physicians) are set three to four years after registration and their difficulty is reflected by a passing rate of only 25-30 per cent.

The consultants are either "full time" N. H. S. (45 per cent of the 11,200 consultants) or "part time". The part time consultant divides his time between his N. H. S. work and his private patients whom he consults in private rooms away from the N. H. S. hospital.

Theoretically, a specialist may be full time private, but it would be uncommon for a general practitioner to direct his N. H. S. patients to one specialist and his private patients to another. A full time private specialist is therefore an exception and is usually to be found practicing luxury "medicine" such as cosmetic surgery, abortions, or obesity consultation, for example.

B. Local Health Authority Services

This branch of the service encompasses a variety of health care programmes within the community and includes the care of nursing and expectant mothers, their babies and domiciliary midwifery. Home helps, health visitors and "meals on wheels" are some of the many paramedical services that are provided for the community.

C. Executive Councils

These are responsible for general medical, dental, pharmaceutical and ophthalmic services outside the hospital. The payment of general practitioner fees, distribution of practices and registration of patients is supervised, as well as contractual agreements between the service and these practitioners. It acts as mediator between the physician and the patient. Every patient is entitled to a family doctor, but has freedom of choice within his district and may report complaints to the executive council. Conversely, a general practitioner with good reason may apply to the executive council for the erasure of a patient from his list.

The tripartite structure is undergoing change at present, principally as a result of the proliferation of administration boundaries and overlap of responsibilities. With the concomitant reform of local and central government, hospital and community services will be embraced by a single authority, the Regional Health Board, and services will be planned to meet local needs entirely from central funds.

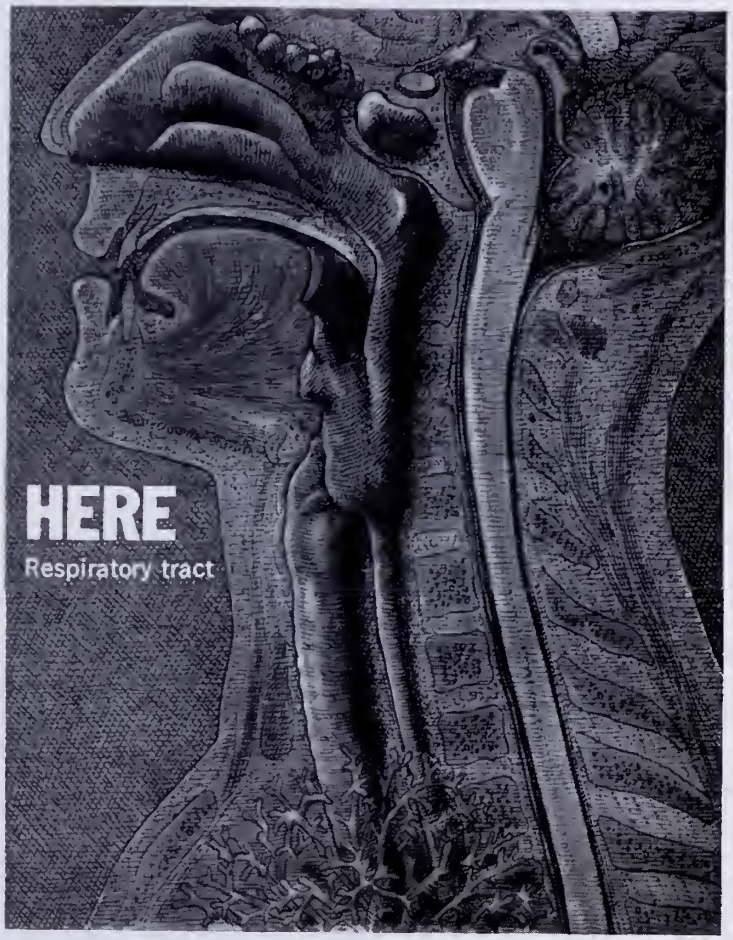
Paying For The Service

The difficulty of providing maximum health care at minimum cost is inherent in any health care program. Increasing costs of medical care in the U. S. A. and U. K. has meant a steadily increasing proportion of the gross national product being spent on medical care.

The N. H. S. is financed in a variety of ways. Some of the costs come from a compulsory national insurance scheme by em-

(Continued on Page 406)

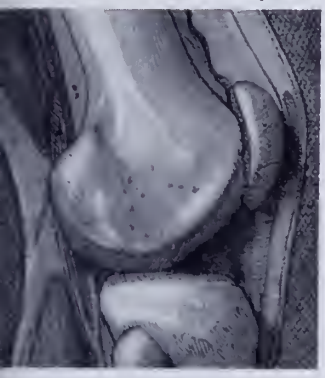
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pirin Compound with
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sphate* 32.4 mg. (gr. ½);
4, codeine phosphate*
3 mg. (gr. 1) *Warning—may
abit-forming. Each tablet
contains: aspirin gr. 3½,
nacetin gr. 2½, caffeine
½.

come | **Burroughs Wellcome Co.**
Research Triangle Park
North Carolina 27709

ployers and employees and some directly from part payments for prescriptions and dental care. Most comes from direct taxation. A small amount is contributed by private patients who pay for their treatment in certain N. H. S. hospitals.

N.H.S. Money Sources

1. Central Exchequer (Taxes)—72%
2. N. H. S. contributions (compulsory insurance)—12%
3. Direct payment (private beds, prescriptions, dental fees)—4%
4. Rates/grants from local authorities—12%

The N. H. S. is, by far, the biggest single employer in the United Kingdom embracing professional, technical, administrative, clerical and auxiliary workers. Although the fundamental aim of the N. H. S. has succeeded in providing free patient care of a standard that has the envy of many regions of the world, its problems and criticisms stem from its failure to reward its staff in an equally acceptable manner. The Government seems unwilling to compete with other sectors of employment in terms of remuneration and relys on the integrity and enthusiasm of its existing employees to prevent industrial action, and on unemployment and lack of job opportunities for recruitment. The result has been frustration and militancy at all levels, and during the last two years unprecedented and sporadic strike action has occurred. This, so far, has not seriously disturbed the treatment of the seriously ill, but has considerably disrupted the management of less acute and elective procedures. Action has spanned the ranks from the laundry workers, certain nursing groups, radiographers, technicians and, finally in the last few weeks, to the consultant specialists who now intend to work to rule, working ten 3 ½ hour sessions in contrast to the customary 60-70 hour week. In fairness to the Government, the substantial percentage increase to bring specialists in line with the remuneration of other professions is untenable in the light of more modest claims in the country as a whole. Nothing short of dissociation from the N. H. S. is likely to result in appropriate remuneration. The unity of purpose and frustrations which have resulted from the last few months negotiations has made this a distinct possibility.

Doctors At Work In The Service

The General Practitioner

The 20,000 General Practitioners provide the essential and primary link between the patient and the national health services. This is a unique front line position and is often portrayed as the leader of a domiciliary team. They are, however, independent and as a rule work from their own premises and employ their own staff. Remuneration is through a combination of capitation fees for each patient registered with the general practitioner, plus other payments for obstetric work preventive measures such as immunization, cervical smears, night calls, reimbursement of staff salaries, group practice allowance and an allowance for seniority and for special vocation training. Thus, most practitioners receive a fair reward for their duties and most complaints from them as a group centre on problems other than remuneration at the present time.

Lack of communication between the general practitioner and the Public Health Sector is one main problem and leads to a sense of isolation. Until recently, many Public Health nurses rarely communicated with the doctor even though they were attending to his patients. This led to confusion and even ill-feeling between them. This is now being remedied by incorporating the nurses as practice nurses under the control of the doctor and has led to a better direction of work load with much less duplication of effort. Similarly, social workers, such as child care officers who previously worked independently from the doctor, are being brought more and more into the practice.

A major communication problem also exists between the practitioner and the hospital. Few physicians manage to see patients while in hospital and many complain of

being made unwelcome by hospital staff when they do visit. Following the patient's discharge, hospitals often manage and supervise the follow-up visits. This leads to a further feeling of isolation and many complain that the hospital in many instances does not supply enough information of the patient's condition or progress for the practitioner to treat them optimally. Thus, the role of the general practitioner as a kind of hospital ombudsman is lessened and makes a myth of continuity of care.

Most problems arise from the conditions of service and the demands of the role of general practitioner itself. Dr. Richard Scott, the first British Professor of General Practice, has summarized the problems as those of time, tools and training. The provision of efficient pleasant premises, with access to modern diagnostic and therapeutic equipment has been stressed as one way to improve the GP's lot. It has further been suggested that the doctor train specifically for general practice rather than half train in a number of specialties as he does at present.

Physicians Asked To Report Child Abuse

Questions that may often be raised by a physician concerning child abuse are answered by the Alabama Department of Pensions and Security in their pamphlet "Report Child Abuse."

The leaflet is designed to inform the physician of his responsibilities in reporting child abuse and to assure him of full protection from legal action by the accused.

Under Alabama's child abuse law, the physician is called upon to report suspected abuse and he in turn, presumed to be acting in good faith, is immune from any legal action, civil or criminal, that might otherwise be incurred or imposed.

Under the law, certainty is not required. The law refers to a "wound or injury" that "raises a suspicion" of child brutality. The law also requires the physician to report immediately by telephone, followed by a written report, to the chief of police, the sheriff or the Alabama Department of Pensions and Security.

Copies of the pamphlet may be obtained from the Alabama Department of Pensions and Security or MASA, 19 S. Jackson Street, Montgomery, AL 36104.

Dean William R. Willard Tapped For Distinguished Service Award

During the 28th Annual Clinical Convention in Portland, the House of Delegates selected William R. Willard, M. D., D. P. H., Moundville, Alabama, Dean of the College of Community Health Sciences at the University of Alabama, to be the recipient of the Distinguished Service Award. Dr. Willard will receive the award at the 1975 annual meeting, Atlantic City.

A graduate of Yale University School of Medicine, Dr. Willard has served on medical school facilities at Yale University, the State University of New York, Upstate Medical Center (Syracuse) and at the University of Kentucky.

Dr. Willard has served with distinction as the Acting Director, Department of Public Health and Welfare; Board of Directors, National Board of Medical Examiners; Health Advisory Committee; Appalachian Regional Commission; and the Health Advisory Committee, Ohio Valley Regional Commission.

He is the recipient of the Distinguished Service Award, American Board of Family Practice and the Abraham Flexner Award, Association of American Medical Colleges. He has authored 42 articles in various medical publications on problems in public health and medical education.

Dr. Willard is married to the former Adalyn LaVerne Sands, and they have three daughters.

Fathers and Sons in Medicine

A Call For Dr. Fraser? Which One?



THE GIFTED FRASERS OF FLORENCE—Dr. Keith Fraser (standing, left) and brother, Dr. "Mack" Fraser (right), urge their father, Dr. Earl Fraser, to give them a chance to play the piano. Talent runs deep in the entire family, spilling over into the arts, handiwork and sports.

Time was, when Mrs. Jean Fraser got a call for "Dr. Fraser," she knew some mother or grandmother was seeking her husband, Earl, a long-time Florence pediatrician.

Now, if it's the lunch hour, or some afternoon when the family is miraculously "off duty," Jean Fraser must ask the caller to be more specific. Since early fall, 1974, there have been three Drs. Fraser in town and they all reside in her house.

Dr. Keith Fraser, the oldest, recently completed his residency in ophthalmology at Shand's Eye Clinic, University of Florida, in Gainesville. Dr. Fraser is now in practice in the Florence Clinic in the newly-completed annex, while his father practices pediatrics in the venerable old annex, just a few feet away.

The Frasers' youngest son, Russell McNeil ("Mack") Fraser, DMD, has completed his residency in oral surgery at Jackson Memorial Hospital in Miami. His field of specialization is oral and maxillofacial surgery.

With two doctor sons back home, Dr. Earl Fraser admits to a pleasant sense of surprise. A former math teacher, who once thought of going into architecture, he quickly puts down any suggestion that he might have encouraged his sons to follow him into the field.

"They'd already seen the worst of it, the hours and all that, while they were growing up," he laughs. "I didn't attempt to influence them, and I couldn't have, if I'd wanted to. Keith used to say he wanted to be a doctor until he got old enough to be a farmer."

But Dr. Keith Fraser says he made his real decision when he was a sophomore or junior at Davidson College. From there, it was on to medical school at Johns Hopkins, an internship at the University of Florida in Gainesville, two years in the Army—one of those in Vietnam, and four years in residency in Gainesville. He and his wife, Mary Lynn, have two young daughters, Beth, 6, and Kathy, 4.

For Dr. Mack Fraser, who started out to be a dentist, there was first undergraduate school, then the University of Alabama Dental School. From Birmingham, Mack Fraser went on to Jackson Memorial Hospital in Miami, for his residency in oral surgery and cosmetic and reconstructive surgery. His last

year there, he was on the teaching staff of the University of Miami Dental College and worked at the VA in Miami, doing oral surgery and anaesthesiology. Dr. Fraser has an eight-year-old son, Russell McNeil, Jr.

Fine arts rank high on the list of Fraser interests other than medicine. The piano is a family favorite and is played by all. A family trio may be in the offing since Dr. Mack Fraser sings with a barbershop quartet, Dr. Keith Fraser sang with the Handel Chorus in Baltimore and Dr. Earl Fraser is president of the Muscle Shoals Concert Association. Paintings and sculpture pieces add to the decor of their home. Everyone enjoys painting and Dr. Earl Fraser occasionally exhibits his dexterity through needlepoint.

"It's good," Jean Fraser says, "to have three doctors in the house once again. It's only rough when the telephone rings. People who ask to speak with Dr. Fraser must first specify which one".

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Drug Dependence: Use cautiously in addiction-prone patients.
Precautions: To avoid excess accumulation, use caution in patients with compromised liver or kidney function.
Adverse Reactions: *Central Nervous System:* Drowsiness, dizziness, vertigo, ataxia, tremor, agitation, irritability, headache, depressive reactions, syncope, insomnia, idiosyncratic reaction (see "Warnings").

Allergic or Idiosyncratic: In previously unexposed patients, these are usually seen after 1-4 doses and include rash, erythema multiforme, pruritus, eosinophilia, fixed drug eruption with cross reaction to meprobamate. Asthmatic episodes, fever, weakness, dizziness, angioneurotic edema, smarting eyes, hypotension and anaphylactoid shock may be manifestations of severe reactions. In such cases, stop carisoprodol and initiate appropriate treatment (e.g., epinephrine, antihistamines, corticosteroids).

Cardiovascular: Tachycardia, postural hypotension, facial flushing.

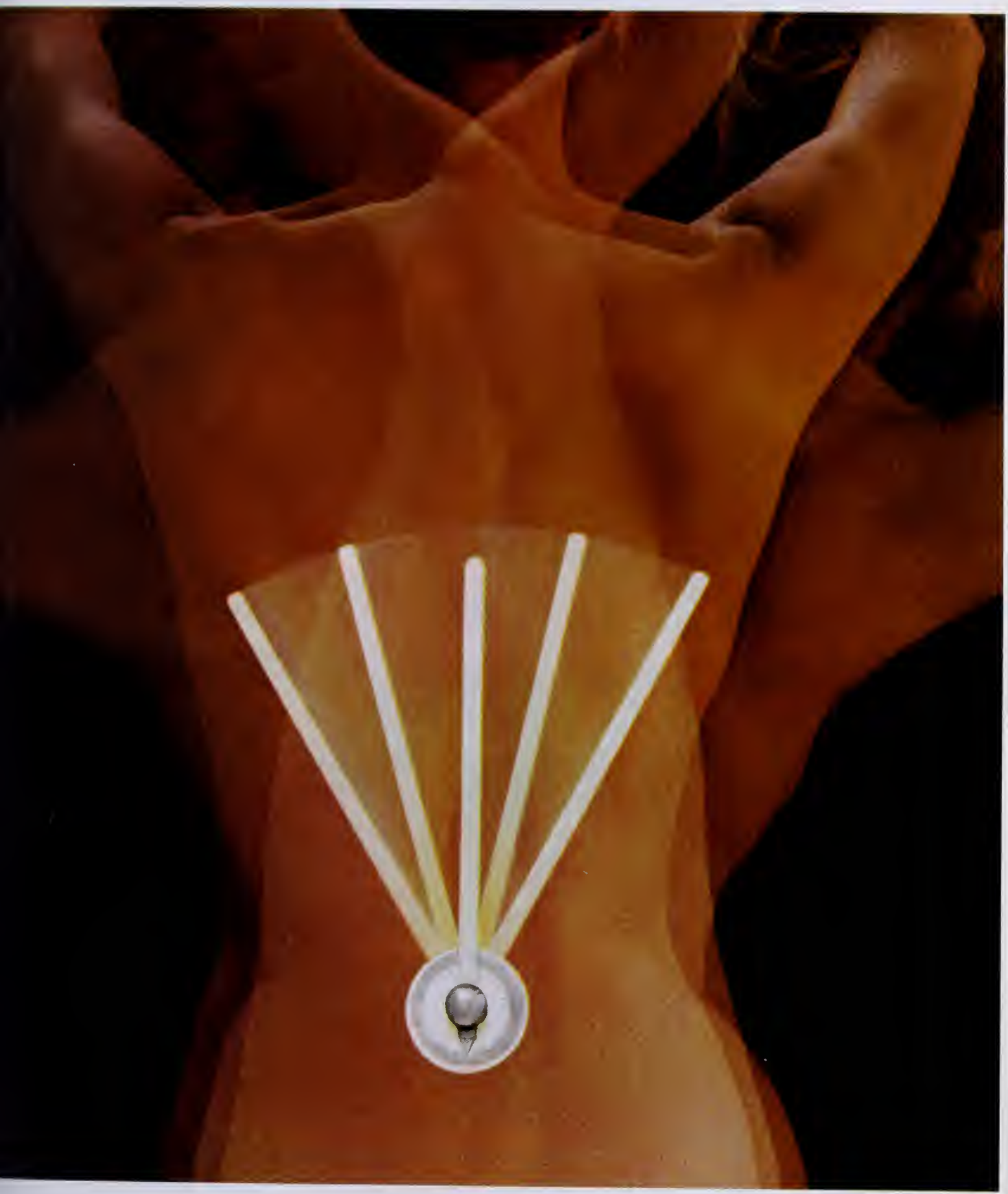
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Overdosage: Has produced stupor, coma, shock, respiratory depression, and, very rarely, death. The effects of an overdosage of carisoprodol and alcohol or other CNS depressants or psychotropic agents can be additive even when one of the drugs has been taken in the usual recommended dosage. Empty stomach, treat symptomatically; cautiously give respiratory assistance, CNS stimulants, pressor agents as needed. Carisoprodol is metabolized in the liver and excreted by the kidney. Diuresis and dialysis have been used successfully with related drug meprobamate. Carefully monitor urinary output; avoid overhydration; observe for possible relapse due to incomplete gastric emptying and delayed absorption.

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CONTINUING MEDICAL EDUCATION

by Larry Dixon

DIRECTIONS: Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the *one* that is BEST in each case.

1) A 50-year-old woman developed over a two-month period dysphagia and weakness of the shoulder and pelvic girdle musculature together with muscle tenderness and induration of the skin and subcutaneous tissues. Further study disclosed an infiltrative neoplasm in the right upper lobe of the lung.

   The most likely diagnosis is:

   (a) myasthenia gravis associated with a malignant thymoma

   (b) menopausal muscular dystrophy and bronchogenic carcinoma

   (c) rhabdomyosarcoma with pulmonary metastases

   (d) intrathoracic carcinoma of the thyroid and hyperthyroidism

   (e) polymyositis associated with bronchogenic carcinoma

2) A 45-year-old man was admitted to the hospital with second degree heart block. He had had no previous cardiac symptoms; electrocardiograms taken at the times of his annual physical examinations had always been normal. Past history disclosed that 20 years ago he had had some back pain and stiffness while serving in the army and 10 years ago he had had a swollen right knee and pain in his left hip. He was well until the day of admission when he first noted palpitations and chest discomfort. On examination there was no cardiac enlargement; a grade 2/6 peristernal decrescendo diastolic murmur was heard. His chest expansion was 2.5 cm. Lumbar flexion was limited. The electrocardiogram was normal except for P-R interval of 0.42 sec.

   The most likely diagnosis is:

   (a) a small coronary occlusion

   (b) heart disease of rheumatoid arthritis

   (c) previously undetected rheumatic heart disease

   (d) heart disease of ankylosing spondylitis

   (e) subacute bacterial endocarditis

3) A 62-year-old woman with a long-standing "classical" rheumatoid arthritis and severe destructive joint changes is admitted to the hospital because of progressive generalized weakness, severe headaches and urinary urgency for the past six months. Her blood pressure is 175/90 mm Hg. The optic fundi appear normal. She has many subcutaneous nodules and scattered small hemorrhagic infarcts in the fingernail folds. The neurologic examination discloses moderate weakness of the flexor muscles and exaggerated tendon reflexes in the lower extremities.

   Which of the following would be most helpful in establishing the diagnosis?

   (a) Muscle and nerve biopsies

   (b) Lumbar puncture and cerebrospinal fluid analysis

   (c) Electroencephalogram

   (d) Serum creatine phosphokinase determination

   (e) Roentgenograms of the cervical spine

4) A 41-year-old man who had chronic rheumatoid arthritis for several years involving predominantly the hands, wrists and knees, experienced severe right calf pain shortly after pulling weeds in his yard. The only medication he was receiving was indomethacin (Indocin), 100 mg/day. When examined by his physician 6 hrs later, there was marked diffuse induration and tenderness of his right calf. Venous distention was not evident and venous cords were not palpable. His entire right leg was moderately edematous; Homans' sign was positive.

Which of the following procedures would be most helpful in establishing the diagnosis of his acute illness?

(a) Venography

(b) Lymphangiography

(c) Roentgenogram of the right knee

(d) Arthrogram of the right knee

(e) Arteriography

5) A 23-year-old man had three episodes of acute low back strain in the past four years. He also experienced one bout of iritis and a brief episode of swelling of the knee joint one year ago. Examination disclosed residual iritis, some flattening of the lumbar spine, slight limitation of motion of the low back and tenderness at levels L3 to L5. The prostate was slightly tender and boggy. Roentgenograms of the entire spine revealed flattening of the lumbar spine consistent with "spasm," "squaring" of the anterior margins of the lumbar vertebrae and in oblique views, slight "haziness" of the sacroiliac joints.

The most likely diagnosis is:

(a) Reiter's syndrome with associated iritis

(b) congenital low back syndrome and unrelated iritis

(c) early ochronosis

(d) ankylosing spondylitis

(e) late-onset juvenile rheumatoid arthritis

6) The combined occurrence of steatorrhea, chronic fibrotic lung disease and Raynaud's syndrome are most likely an indication of

(a) chronic pancreatitis with aspiration pneumonitis

(b) systemic sclerosis (scleroderma)

(c) cystic fibrosis (mucoviscidosis)

(d) amyloidosis of several organs

(e) secondary deficiency features of sprue

7) The inflammatory reaction associated with early rheumatoid arthritis primarily involves the

(a) articular cartilage

(b) subcutaneous collagen

(c) synovium

(d) articular capsule

(e) subchondral bone

8) 70-year-old man was hospitalized because of low back pain. Roentgenograms of his spine showed diffuse osteoporosis.

Laboratory Studies:

Serum uric acid—4.2 mg/100 ml

Serum inorganic phosphorus—2.0 mg/100 ml

Serum alkaline phosphatase—12 Bodansky units (normal: 2-6 Units)

Urine calcium/24 hr—320 mg/100 ml (on a calcium diet of 150 mg/day)

On the ninth day of hospitalization a surgical procedure was performed. Three days postoperatively, pain and swelling developed in the patient's right knee. Fluid removed from the affected joint showed 22,000 leukocytes/cu mm with 82 per cent neutrophils. Weakly positive birefringent crystals were seen by com-

pensated polarized light microscopy; most were within neutrophils. The crystals were probably

(a) monosodium urate monohydrate

(b) dicalcium phosphate dihydrate

(c) hydroxyapatite

(d) cholesterol

(e) calcium pyrophosphate dihydrate

9) A patient with systemic lupus erythematosus complicated by nephritis and hyperuricemia (12 mg/100 ml) is considered for both allopurinol (Zyloprim) and 6-mercaptopurine (Purinethol) therapy. Which of the following statements best summarizes the relationship of these two drugs?

(a) The two drugs should never be given concomitantly

(b) The drugs may be given together in the usual dosages, but complete blood counts should be obtained at least every two days

(c) The pharmacologic action of allopurinol is inhibited by concomitant administration of 6-mercaptopurine

(d) If the two drugs are to be given concomitantly, the dosage of 6-mercaptopurine should be reduced to about 20 per cent of the usual dosage

(e) The pharmacologic action of 6-mercaptopurine is inhibited by concomitant administration of allopurinol

10) The chronic use of systemic corticosteroids is most likely to cause osteoporosis of the axial skeleton of a

(a) 70-year-old man

(b) 50-year-old woman

(c) 22-year-old man

(d) 22-year-old woman

(e) 6-year-old child

Correct Answers: 1-E, 2-D, 3-E, 4-D, 5-D, 6-B, 7-C, 8-E, 9-D, 10-B

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Adverse Reactions: No significant adverse reactions have been reported with NEOPAP (acetaminophen) SUPPRETTES. However, adverse reactions associated with administration (usually chronic) of this drug have included the following:

Blood: Cyanosis, methemoglobinemia, sulfhem· globinemia, and hemolytic anemia; neut· penia, leukopenia, and pancytopenia.

Allergic: Skin eruptions, urticaria, fever.

Other: Hypoglycemia, CNS stimulation, jaundice.

Dosage and Administration: Children 3 to 6 years age: One 2 gr suppository rectally 3 or 4 times da not to exceed 8 grains per day.

Children 6 to 12 years of age: One 5 gr supposit rectally 3 or 4 times daily; not to exceed 20 gra per day.

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"The Abnormal Pap Smear" And Its Evaluation—The Modern Approach

J. Max Austin, Jr., M.D.

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University Station
Birmingham, Alabama

EDITOR'S NOTE: *This is the second in the series of articles from the Department of Obstetrics and Gynecology—UAB Medical Center.*

The use of the Papanicolaou smear for cervical cancer screening has had its twenty-fifth birthday. It was born in controversy, since there were many pathologists who would not yield to the concept of evaluating cells rather than tissue. It remains in controversy, since there are many theories concerning the appropriate evaluation of the abnormal Pap smear. However, there is presently sufficient data to indicate the appropriate steps to be taken when an abnormal Papanicolaou smear is present. As indicated in Chart 1, it is simple to manage patients with Class I or Class II smears or patients in whom the pathologists have indicated there is inflammation or mild dysplasia. The real questions arise when there are Class III or cells which the pathologists consider to be associated with moderate dysplasia or greater cellular abnormality.

The use of random cervical biopsies has no place in the modern management of these patients. The use of the Schiller stain with directed biopsies is acceptable, but associated with a 10 per cent error. Conization of the cervix is contraindicated in pregnancy and is associated with a sizeable incidence of morbidity in the non-pregnant patient. Moreover, it is associated with a cost of $500 plus. However, it is an acceptable technique, although it is not the preferable one. Its place is depicted in Chart 2.



THE COLPOSCOPE—The preferred instrument for management of the abnormal Pap smear.

The preferable method of managing the abnormal Pap smear is the use of the colposcope. This instrument magnifies the cervix ten times and allows the observer to biopsy the specific area or areas of the cervix that are responsible for the abnormal cells. In simple language, one can go right to the

CHART #1

PAPS SMEAR FINDINGS AND EVALUATION

		Evaluation (Classical)	Evaluation (Modern)
Class I	(Negative)	Repeat	
Class II	(Inflammation - Mild Dysplasia)	Treat infection and repeat in 3 months	Treat infection and repeat in 3 months - If still abnormal, colposcopy
Class III	(Moderate - severe dysplasia)	Conization of cervix if no gross lesion to biopsy by Schiller's staining	Colposcopy and use flow sheet for evaluation and treatment. See Chart #2.
Class IV	(Carcinoma in situ)		
Class V	(Invasive carcinoma)		

"crappie hole" without having to fish the whole river. The colposcope has been used at the University of Alabama to evaluate abnormal Papanicolaou smears in approximately 1500 patients during the past five years. The colposcope has decreased our conization rate by approximately 200 per cent. It has eliminated negative cervical cones and cervices with minimal changes.

There are problems associated with the use of the colposcope. The equipment is expensive and the gynecologist must receive special instruction and pathologists must appreciate the relationship between the Papanicolaou smear and the directed biopsy.

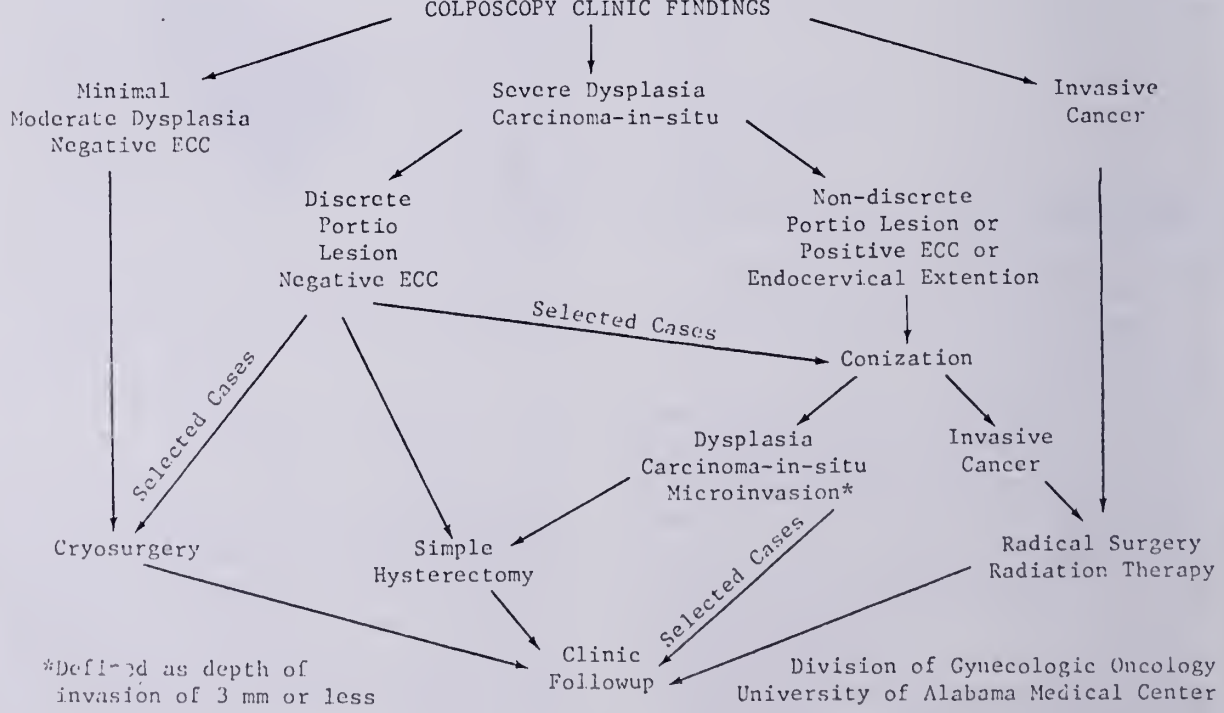
The Division of Gynecologic Oncology in the Department of Obstetrics and Gynecology at the UAB Medical Center has obtained

CHART #2

MANAGEMENT OF ATYPICAL SMEARS

Suspicious or Positive Pap Smears

Colposcopy, Repeat Smears, Target Cervical Biopsies, Endocervical Curettage (ECC)



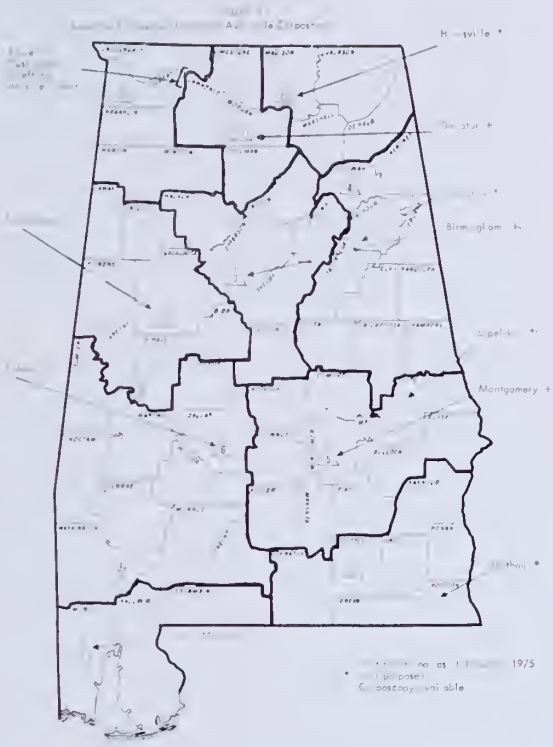
*Defined as depth of invasion of 3 mm or less

Division of Gynecologic Oncology
University of Alabama Medical Center

a grant to establish colposcopy units over the state of Alabama. These units are to be manned by local obstetricians and gynecologists and pathologists. This technique is, therefore, available through the private practitioners to all patients in Alabama.

The location of these special clinics is indicated in Chart 3; they are correlated with the state family planning districts and make colposcopy available to patients within a 100 mile radius. The grant furnishes equipment and training for the local units, as well as consultation from the Division of Gynecologic Oncology at UAB. If this project is supported by the physicians of Alabama, the grant can possibly be extended and the women of our state will be materially benefitted.

Information concerning colposcopy and the referral of patients to these units or physicians can be obtained by calling the MIST operator at UAB and talking to Dr. Hugh Shingleton, who is director of the Division of Oncology, or Dr. J. Max Austin, who is a member of this Division.



Women's Attitudes Regarding Breast Cancer

A Summary by:
The Gallup Organization, Inc.
Conducted for:
The American Cancer Society

EDITOR'S NOTE: *This report is based on a nationwide in-depth survey conducted by The Gallup Organization, Inc. for the American Cancer Society. A national sample of 1,007 women 18 years and older were personally interviewed, with interviews averaging one hour in length. Prior to the survey, a series of tape recorded group discussions was conducted as a qualitative basis for developing the formal questionnaire used in the survey.*

Breast cancer is so much a major medical concern of American women that most grossly over-estimate its prevalence.

When asked near the beginning of the interview, before any mention had been made of breasts and breast cancer, what are the two or three most serious medical problems facing women, 43 per cent named cancer first, and another 13 per cent referred specifically to breast cancer and 6 per cent to uterine or cervical cancer. No other health problem was named first by comparable percentages. Undoubtedly a major reason for this saliency of concern regarding breast cancer is the fact that 77 per cent of all women know someone personally who has had breast cancer, and 41 per cent know three or more.

When asked to estimate the number of women out of every 1,000 who develop breast cancer during their life, only 8 per cent gave a reasonably accurate answer of about 50. A majority of 56 per cent estimated about 100 or more. Compounding this exaggerated idea of the prevalence of breast cancer is the widespread belief that most breast lumps are cancerous. Thirty-eight per cent of all women said that half or more of all breast lumps are cancerous.

Given these misconceptions regarding breast cancer, fear and panic regarding any breast lump is to be expected. One typical reaction to fear and panic is avoidance. Thus, 46 per cent of all women said they feel having monthly breast examinations would make them worry when it wasn't necessary.

Counteracting this fear and pessimism is a moderate optimism regarding therapy. Thirty-four per cent of all women think that "most" women who have breast cancer survive, and another 27 per cent that more than half survive, for a total of 61 per cent who express at least some optimism. Also, 74 per cent of all women think "a great deal" of progress has been made over the past twenty years in diagnosing breast cancer early, and 69 per cent in the cure of breast cancer. Also, eight of ten women who know someone who has had breast cancer say that at least one of the afflicted women they know has been "saved."

If optimism about survival and progress in diagnosis and treatment of breast cancer can be effectively linked to a realistic understanding about incidence, this could help motivate women to schedule breast examinations more frequently than they have up to now.

An impediment to the development of such an understanding is widespread ignorance and confusion about the causes of breast cancer. A majority of 62 per cent is under the misapprehension that a blow or injury to the breast can cause breast cancer. On the other hand, only 41 per cent realize that if someone else in her family has had breast cancer this increases the chance that she, herself, might develop one. Also, despite the lack of definitive scientific evidence of these points, 43 per cent believe that use of birth control pills increases the chances of developing breast cancer and 25 per cent that breast feeding decreases these chances. Finally, 28 per cent believe that age makes no difference and 12 per cent that the most cancer prone ages are before 35, for a total of 40 per cent who do not know that with increasing age there is an increasing chance of developing breast cancer.

(Continued on Page 425)

IMPORTANT INFORMATION: *This is a Schedule V substance by Federal law; diphenoxylate HCl is chemically related to meperidine. In case of overdosage or individual hypersensitivity, reactions similar to those after meperidine or morphine overdosage may occur; treatment is similar to that for meperidine or morphine intoxication (prolonged and careful monitoring). Respiratory depression may recur in spite of an initial response to Nalline® (nalorphine HCl) or may be evidenced as late as 30 hours after ingestion. LOMOTIL IS NOT AN INNOCUOUS DRUG AND DOSAGE RECOMMENDATIONS SHOULD BE STRICTLY ADHERED TO, ESPECIALLY IN CHILDREN. THIS MEDICATION SHOULD BE KEPT OUT OF REACH OF CHILDREN.*

Indications: Lomotil is effective as adjunctive therapy in the management of diarrhea.

Contraindications: In children less than 2 years, due to the decreased safety margin in younger age groups, and in patients who are jaundiced or hypersensitive to diphenoxylate HCl or atropine.

Warnings: Use with caution in young children, because of variable response, and with extreme caution in patients with cirrhosis and other advanced hepatic disease or abnormal liver function tests, because of possible hepatic coma. Diphenoxylate HCl may potentiate the action of barbiturates, tranquilizers and alcohol. In theory, the concurrent use with monoamine oxidase inhibitors could precipitate hypertensive crisis.

Usage in pregnancy: Weigh the potential benefits against possible risks before using during pregnancy, lactation or in women of childbearing age. Diphenoxylate HCl and atropine are secreted in the breast milk of nursing mothers.

Precautions: Addiction (dependency) to diphenoxylate HCl is theoretically possible at high dosage. Do not exceed recommended dosages. Administer with caution to patients receiving addicting drugs or known to be addiction prone or having a history of drug abuse. The subtherapeutic amount of atropine is added to discourage deliberate overdosage; strictly observe contraindications, warnings and precautions for atropine; use with caution in children since signs of atropinism may occur even with the recommended dosage.

Adverse reactions: Atropine effects include dryness of skin and mucous membranes, flushing and urinary retention. Other side effects with Lomotil include nausea, sedation, vomiting, swelling of the gums, abdominal discomfort, respiratory depression, numbness of the extremities, headache, dizziness, depression, malaise, drowsiness, coma, lethargy, anorexia, restlessness, euphoria, pruritus, angioneurotic edema, giant urticaria and paralytic ileus.

Dosage and administration: ***Lomotil is contraindicated in children less than 2 years old.*** Use only Lomotil liquid for children 2 to 12 years old. For ages 2 to 5 years, 4 ml. (2 mg.) t.i.d.; 5 to 8 years, 4 ml. (2 mg.) q.i.d.; 8 to 12 years, 4 ml. (2 mg.) 5 times daily; adults, two tablets (5 mg.) t.i.d. to two tablets (5 mg.) q.i.d. or two regular teaspoonfuls (10 ml., 5 mg.) q.i.d. Maintenance dosage may be as low as one fourth of the initial dosage. Make downward dosage adjustment as soon as initial symptoms are controlled.

Overdosage: Keep the medication out of the reach of children since accidental overdosage may cause severe, even fatal, respiratory depression. Signs of overdosage include flushing, lethargy or coma, hypotonic reflexes, nystagmus, pinpoint pupils, tachycardia and respiratory depression which may occur 12 to 30 hours after overdose. Evacuate stomach by lavage, establish a patent airway and, when necessary, assist respiration mechanically. Use a narcotic antagonist in severe respiratory depression. Observation should extend over at least 48 hours.

Dosage forms: Tablets, 2.5 mg. of diphenoxylate HCl with 0.025 mg. of atropine sulfate. *Liquid,* 2.5 mg of diphenoxylate HCl and 0.025 mg. of atropine sulfate per 5 ml. A plastic dropper calibrated in increments of ½ ml. (total capacity, 2 ml.) accompanies each 2-oz. bottle of Lomotil liquid.

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Physicians and patients both want prompt control of the symptoms of diarrhea. A rapid, uncontrolled loss of fluids and electrolytes can cause a medical crisis, particularly in children, and in patients who are seriously ill, or in people who are badly undernourished.

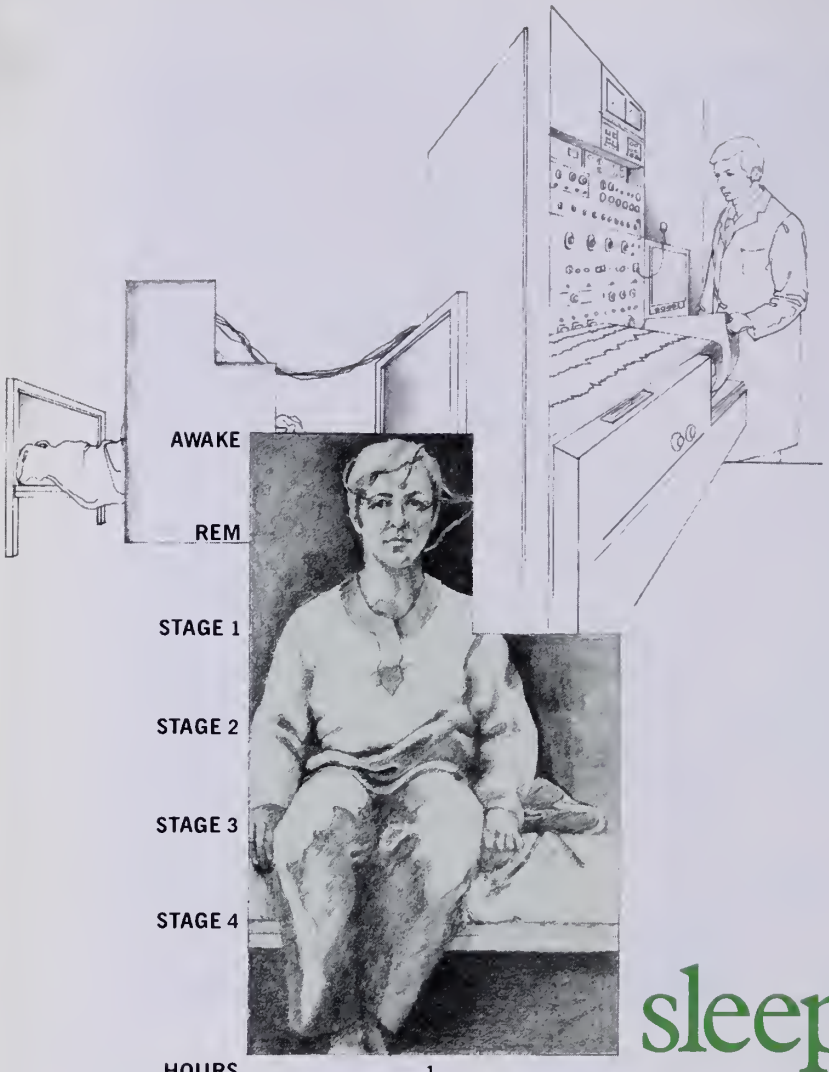
Lomotil usually stops diarrhea promptly. This rapid action halts the emergency aspect of diarrhea and is comforting and reassuring to the patient. Electrolyte and fluid losses can be corrected while the specific cause of the diarrhea is being determined. If an infective agent is the cause, appropriate antibiotic therapy should be given along with Lomotil.

Lomotil has few side effects, and those that do occur are generally mild.

Lomotil®
TABLETS/LIQUID

Each tablet and each 5 ml. of liquid contain:
diphenoxylate hydrochloride ..... 2.5 mg.
(Warning: May be habit forming)
atropine sulfate ..... 0.025 mg.

Usually stops diarrhea promptly.

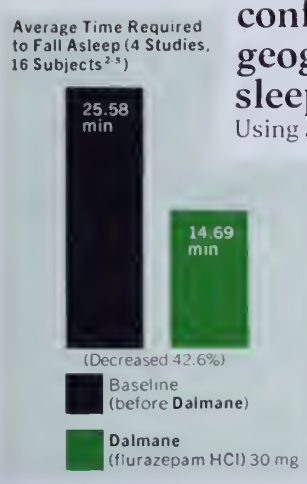


sleep begins within 17 minutes, on average ... an initial benefit of

Dalmane®
(flurazepam HCl)

proved by a 22-night clinical study of insomnia patients in the sleep research laboratory and at home[1]

Three insomnia patients selected for difficulty falling asleep were administered Dalmane (flurazepam HCl) 30 mg for 14 consecutive nights. Placebo was given for four nights prior to and four nights after Dalmane. Physiologic tracings on Dalmane nights 1-3 showed sleep induction time averaged 13.90 minutes; on Dalmane nights 12-14, 18.80 minutes. Combined average for the 6 monitored drug nights was 16.35 minutes.[1]



confirmed by clinical studies in four geographically separated sleep research laboratories[2-5]

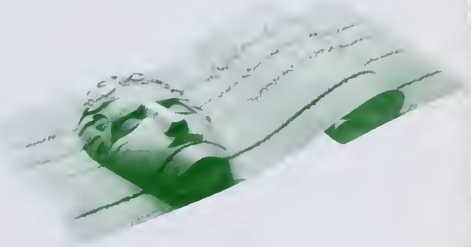
Using a 14-night protocol involving eight insomniac and eight normal subjects, four studies confirmed the sleep-inducing effectiveness of Dalmane (flurazepam HCl) and the reproducibility of this response. On average, one 30-mg capsule induced sleep within 17 minutes. In all these studies, Dalmane induced sleep rapidly, reduced nighttime awakenings, and provided 7 to 8 hours of sleep without repeating dosage[2-5]

Dalmane (flurazepam HCl) induces and maintains sleep, with relative safety

Dalmane is generally well tolerated; morning "hang-over" has been relatively infrequent. While dizziness, drowsiness, lightheadedness and the like have been noted most often, particularly in the elderly and debilitated, physicians should be aware of the possibility of more serious reactions, as noted below.

Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening, in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.
Contraindications: Known hypersensitivity to flurazepam HCl.
Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.
Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.
Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.
Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.
Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



when restful sleep is indicated

Dalmane® (flurazepam HCl)

One 30-mg capsule *h.s.* — usual adult dosage (15 mg may suffice in some patients).
One 15-mg capsule *h.s.* — initial dosage for elderly or debilitated patients.

- **induces sleep within 17 minutes, on average**
- **reduces nighttime awakenings**
- **sustains sleep 7 to 8 hours, on average, without repeating dosage**

REFERENCES: 1. Kales A, *et al*: *Arch Gen Psychiatry 23*:226-232, Sep 1970
2. Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington DC, May 3-7, 1971
3. Frost JD Jr: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ
4. Vogel GW: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ
5. Dement WC: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ

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Trademark

Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

Just 'Dyazide' once daily or twice daily
No inconvenient potassium supplements
Nor special K^+ rich diets needed as a rule



Two prime reasons patients drop out of hypertensive therapy are (1) the patient failed to understand directions, and (2) the regimen was overly complicated. Dosage is simple with 'Dyazide', easily understood, once or twice daily, depending on response. There's no need to complicate the regimen with potassium supplements or unwieldy potassium-rich diets.

Before prescribing, see complete prescribing information in SK&F literature or *PDR*. The following is a brief summary.

Indications: Edema associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. Also, mild to moderate hypertension.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: **Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired.** Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. **Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently**—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

Supplied: Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

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Carolina, P.R. 00630
Subsidiary of
SmithKline Corporation

TO KEEP BLOOD PRESSURE DOWN AND KEEP POTASSIUM LEVELS UP

(Continued From Page 420)

Medical Care Habits and Breast Examinations

Twenty-four per cent of all women have not had their breasts examined by any physician in the past five years, and another 26 per cent have had fewer than five examinations. In other words, half of the adult female population do not have annual breast examinations by a physician.

The seriousness of this problem of non-examination is particularly severe among older women, the poorly educated, low income women, and blacks. The proportion who have not had at least five physician breast examinations in the last five years is 56 per cent among women 55 and older, 64 per cent among those with a grade school education, 61 per cent of those with annual family incomes under $7,000, and 56 per cent among blacks.

While these segments of the population are particularly unlikely to have physician breast examinations at least once a year, the problem of infrequent examinations exists in all walks of life. The proportion who have not had physician breast examinations at least once a year is 34 per cent among college educated women, 37 per cent among those from professional and business households, and 28 per cent among those with annual family incomes of $15,000 or more. This illustrates the need for an effective program for the early detection of breast cancer that will reach all segments of the population.

The Practice of Breast Self-Examination

While awareness of breast self-examination is common, its actual practice is quite limited. Thus, while 77 per cent of all women have heard of b r e a s t self-examination, almost three out of every ten aware women have never practiced it. Moreover, a minority of those who have practiced breast self-examination do so on a monthly basis. As a result, only 18 per cent of all women did monthly breast self-examinations during the past year.

Far more important than increasing awareness of breast self-examination at this time is the problem of inducing women to practice it regularly.

There are three factors that account for the failure of aware women to practice breast self-examination:

1. Ignorance of the importance of frequent breast examinations: Only 12 per cent of all women realize that the desirable frequency for breast examinations is monthly. Also, 28 per cent of aware non-practicers gave as their reason for not doing self-examinations the fact that their breasts are examined by a doctor. For these women, breast self-examination is seen as redundant rather than as a necessary supplement to physician examinations.

2. Fear and anxiety: As already noted, 46 per cent of all women feel that monthly examinations would make them worry unnecessarily. Also, almost half (47 per cent of the reasons given by aware non-practicers for not doing self-examination were "avoidance" responses, for example, "neglect", "should have but haven't taken the time", and "don't feel I have a need for it." Also, these aware non-practicers were the most likely to say they would put off seeing a doctor for at least a few days if they were to notice any abnormal breast change. For such women to be induced to try breast self-examination would require an approach that is anxiety reducing.

3. Lack of knowledge about breast self-examination and confidence in how to do it: For many women "awareness" of breast self-examination means only a generalized perception that there is such a thing rather than having specific knowledge of it. For example, 53 per cent of aware non-practicers do not know that one should assume any specific position when doing breast self-examination. Even among women who have practiced it at some time, 22 per cent are uninformed on this point. Also, 32 per cent of aware non-practicers could not describe how a woman would go about looking for signs of possible breast cancer, contrasted with 8 per cent of women who have practiced it.

With respect to lack of confidence, only 22 per cent of all women who have ever practiced breast self-examination feel "very confident" that they know how to do breast

self-examination, and 35 per cent that they know what a lump would feel like. Among practicers who are very confident about how to do breast self-examination, 52 per cent have practiced it monthly during the past year. This contrasts with only 16 per cent of practicers who are not confident. As this demonstrates, even if a woman has developed sufficient interest in breast self-examination to try it, if she does not feel confident about how to do it, there is a good chance that she will do it irregularly or not at all.

Role of the Physician

Physicians now play the single most important role in getting women to practice breast self-examination. Nonetheless, their role is still quite limited in terms of what it could be.

Twenty-three per cent of all women have become aware of breast self-examination through a personal discussion with a physician, and another 9 per cent by a pamphlet in a physician's office. Thus, a total of 32 per cent of all women have become aware of breast self-examination through a physician. This compares with 17 per cent who first become aware through a magazine article, 8 per cent television, 8 per cent newspapers and 2 per cent radio. In addition to the 9 per cent who obtained a pamphlet in a physician's office, another 6 per cent first became aware of breast self-examination through a pamphlet obtained elsewhere. Thus, a total of 15 per cent of women first became aware through reading a pamphlet.

In terms of actual practice, becoming aware of breast self-examination through a physician is by far the most effective way. Thirty-seven per cent of women who have practiced breast self-examination first became aware of it through personal discussion with a physician. In contrast, only 12 per cent of aware non-practicers first heard of breast self-examination this way. The mass media are measurably less effective when it comes to actual practice. Among practicers 39 per cent first became aware of breast self-examination through the mass media, compared with 57 per cent of non-practicers.

Since physicians are particularly effective in translating mere awareness of breast self-examination into actual practice, it is unfortunate that more do not make a greater effort to familiarize women with it. Only 35 per cent of all women report that a physician has ever brought up the topic with them. Furthermore, only 24 per cent of all women have received personal instruction from a physician on how to do breast self-examination. Even among women who see a gynecologist for periodic check-ups, only 34 per cent have been instructed by a physician on how to do breast self-examination.

Whether one has been personally instructed on how to do breast self-examination sharply differentiates practicers from non-practicers. The overwhelming majority (92 per cent of women who have received personal instructions have practiced breast self-examination, 33 per cent on a monthly schedule and 45 per cent less regularly, during the preceding year. In contrast, among aware women who have not received any instructions at all, only 43 per cent have ever practiced it, and a mere 14 per cent have done so monthly in the past year.

Related to this is the fact that only 23 per cent of all women have a physician who examines their breasts at every visit. Even among women who see a gynecologist for check-ups, a minority of 43 per cent say there is at least one physician they see who examines their breasts every time they see him. Also, 20 per cent of these women claim that during the past five years they have not had any breast examination performed by a gynecologist.

The fact that breast examinations are not performed routinely by physicians contributes to the problem, noted earlier, that only a minority of women have their breasts examined by a physician at least once a year. The vast majority (82 per cent) of all adult women report they have seen a physician for some reason or other at least once during the past year. Thus, if physicians were to make it a standard practice to perform breast examinations at every visit, this could dramatically increase the proportion of women

who have breast examinations at least once a year without any change in the frequency with which women now see a doctor.

Moreover, there is considerable receptivity to having physicians explain what they are doing, and why, as a means of reducing embarrassment during breast examinations. Seventy-two per cent of all women said this would reduce embarrassment, 24 per cent that it would make no difference, and only 2 per cent that it would be more embarrassing. For most women explaining the examination procedure lessens whatever embarrassment does exist, and in a way that provides an excellent basis for teaching breast self-examination. If breast examinations were to be performed routinely, with accompanying explanations, this could prove to be a very effective way of increasing the proportion of women who regularly practice breast self-examination.

Attitudes Regarding Breast Surgery

Women have strongly conflicting fears and anxiety about mastectomy relating to worry about cancer on one hand and to the disfigurement of breast removal on the other.

Most women are not aware of the extent to which extensive breast surgery is used in the treatment of breast cancer. Of three surgical procedures, simple mastectomy was familiar to the largest proportion of women (79 per cent), of whom 34 per cent think it is the most often used procedure and 5 per cent the least often. Radical mastectomy is familiar to somewhat fewer women (66 per cent), among whom the weight of opinion tends to be that it is used least often (36 per cent) rather than most often (23 per cent). Lumpectomy is the least familiar (62 per cent) with opinion fairly evenly divided as to whether it is used least often (30 per cent) or most often (25 per cent).

An analysis of reasons for believing each of these three types of treatments is used most often, or least often, reveals three dominant trends:

a. Simple mastectomy tends to be thought of as extensive surgery, with radical mastectomy perceived as an extreme measure

b. Early detection is believed to be increasing the use of less radical surgical procedures

c. Precautionary considerations are seen as central in decisions to use more radical surgical procedures

The frequency of mention of precautionary considerations, combined with the belief that early detection obviates the need for radical surgery, suggests there is a considerable potential for women to accept claims that radical mastectomy is performed more often than is necessary. Nonetheless, at this time only 33 per cent think that "sufficient progress has been made in other forms of treatment for breast cancer so that extensive surgery is no longer needed as much as it used to be." Also, only 14 per cent believe the chance of non-recurrence is very good if only the cancerous lump is removed, compared with 35 per cent who think the chance of non-recurrence is very good after breast removal. Under existing conditions, acceptance of lumpectomy is limited, but this may change since many women tend to think that limited surgery is related to the early detection of lumps.

Rejection of the practice of having women sign a consent form, prior to exploratory surgery, to remove the breast immediately provided that tests show the lump to be a cancer, is to a considerable degree dependent on how much faith and confidence women have in their physicians. Also of major significance is the psychological trauma of undergoing breast surgery.

When asked which of three consent procedures they would want their own physician to follow, 20 per cent said that if he recommends breast removal they would still want to be able to leave the hospital to consult with another doctor. Three-fourths of these women gave as their reason "doctor could be wrong; two opinions are better than one."

Another 28 per cent would want to have a post-diagnostic discussion and then return to surgery for breast removal. Half of these women gave as their reason "know what to expect; reassuring." Other reasons relate

primarily to adjustment, for example, "have time to think; chance to talk to husband or family." If physicians were to take the time before exploratory surgery to advise women and their husbands about the nature of breast cancer, and the specific considerations he would have in mind before recommending breast removal, it is likely that most of them would find the signing of prior consent acceptable.

About half of all women (47 per cent said they prefer signing prior consent, largely because of fear of surgery ("get it over with; why have two operations"). Other common reasons for this preference are "get it out before it spreads" and "doctor knows best." That is to say, fear of surgery and cancer, and confidence in their physician, are the chief motivations of women who favor prior consent.

Reactions to Breast Removal

Undergoing breast removal is anxiety producing both because of fear of cancer and the feeling that this impairs one's womanhood. The nature of this conflict is illustrated by the fact that women divide fairly evenly as to which would be more disturbing emotionally—removal of the entire breast as a precautionary measure (48 per cent) or removal of the cancerous lump only with the hope that spread has not occurred (42 per cent).

When asked what would be the first thoughts of a woman whose breast had just been removed, 36 per cent of women said these thoughts would be about the fact that she had cancer and concern as to whether it had been completely removed. In comparison, 32 per cent of all responses related to emotional adjustment to breast removal.

Fear of cancer tends to be the somewhat greater concern for most women. When asked which would be the greater worry after breast removal, 59 per cent said it would be that one had cancer, 23 per cent the loss of her breast, 15 per cent that both would be equal, and 3 per cent couldn't say. While fear of cancer looms as the greater concern for most women, among younger women, those of middle socio-economic status, and the gregarious, breast loss assumes a significance that is somewhat greater than among other types of women.

Breast loss can affect both a woman's self image and her relations with men. Fifty-one per cent of all women said that breast removal would lead "a woman like yourself" to lose her sense of being a woman. This attitude is most common among single women (61 per cent) and those 18-34 years of age (66 per cent). In terms of personality, the type of woman who is most likely to feel that breast removal impairs her sense of womanhood is relatively likely to be a highly sociable, tense person who tends to seek out new acquaintances and to be somewhat more concerned than the average about her physical appearance. However, there is no association between seeing oneself as attractive to men and feeling that breast loss impairs one's womanhood. This suggests that an important component of the physical attractiveness of a breast is social and not only sexual.

Most women do not expect an existing happy marriage to be endangered by breast removal, with only 19 per cent expressing this view. However, 51 per cent feel that the chances of a single woman being happily married are reduced if she has a breast removed. In other words, it is the establishment of a satisfactory relationship with a man, rather than the maintenance of one, that breast loss is believed to endanger.

Despite the concern that many women have about how breast loss may affect their lives, 56 per cent feel that after removal it is very likely that one can lead as normal a life as before, while 36 per cent feel this is fairly likely. Thus, a total of 92 per cent believe that breast removal is unlikely to destroy one's normal life pattern. Also, only 18 per cent feel that it would be harder to adjust to breast loss than to the loss of an arm or leg and a mere 4 per cent say they would rather be dead than have a breast removed. Finally, 64 per cent say they would want to partici-

(Continued on Page 440)

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The Upper Functional G.I. Disorder

The Pseudo-ulcer

Ulcer-like symptoms: no G.I. pathology



X-ray demonstrates normal stomach.

The patient is convinced he has an ulcer. However, symptoms are not quite typical, and x-ray findings are negative. These findings and the results of additional diagnostic procedures exclude an organic basis for the patient's complaints. A diagnosis of "upper functional gastrointestinal disorder" is made, which is supported by the fact that episodes of painful symptoms coincide with episodes of excessive anxiety, as indicated by the history.

It may be useful to explain to the patient the mechanism by which emotions upset normal G.I. functioning, resulting in hypersecretion and hypermotility and thus causing such symptoms as nausea and epigastric pain. In upper functional gastrointestinal disorders, counseling by the primary physician can often help the patient understand how excessive anxiety may cause flare-ups of G.I. symptoms.

A disproportionate number of patients seen by the general practitioner suffer from functional disorders, as do more than half of those seen by the gastroenterologist.* Where milder cases may respond to counseling alone, if symptoms are severe and disabling to any degree, a suitable regimen may include medication to reduce the symptoms and the excessive anxiety that often provokes these distressing symptoms.

In these cases, Librax as an adjunct can greatly contribute to the course of therapy. Its dual action can offer relief of both painful symptoms and excessive anxiety, because each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br. The antianxiety action of Librium® (chlordiazepoxide HCl) makes Librax exceptional among drugs for certain gastrointestinal disorders associated with excessive anxiety; the clidinium bromide (Quarzan™) component furnishes dependable antisecretory-antispasmodic action. Dosage is flexible; it may be adjusted according to your patient's requirements within the range of 1 or 2 capsules three or four times daily, up to 8 capsules daily in divided doses. Please consult the complete product information regarding precautions and adverse reactions.

*Rome HP, Brannick TL: Orientation and mechanism of functional disorders; clinicophysiologic correlation, chap. 133, in *Gastroenterology*, edited by Bockus HL. Philadelphia, W.B. Saunders Company, 1965, p. 1116.

An adjunct in anxiety-related upper functional G.I. disorders

Librax®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

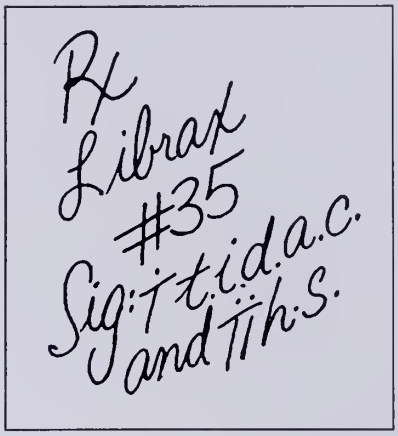
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Please see summary of product information on following page.

An adjunct in anxiety-related upper functional G.I. disorders

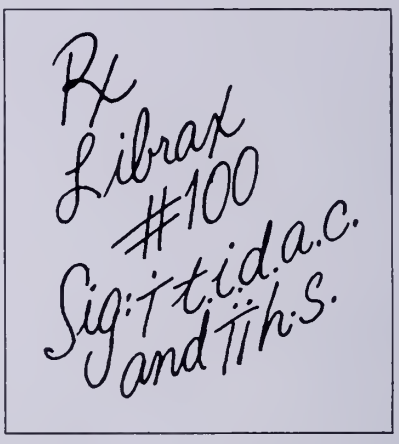
Librax®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.



Initial therapy

The initial prescription allows evaluation of patient response to therapy.



Follow-up therapy

Follow-up therapy with a prescription for 2 to 3 weeks' medication usually helps maintain patient gains.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Symptomatic relief of hypersecretion, hypermotility and anxiety and tension states associated with organic or functional gastrointestinal disorders; and as adjunctive therapy in the management of peptic ulcer, gastritis, duodenitis, irritable bowel syndrome, spastic colitis, and mild ulcerative colitis.

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libid —all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

Dosage: Individualize for maximum beneficial effects. Usual maintenance dose is 1 or 2 capsules, 3 or 4 times a day, before meals and at bedtime. Geriatric patients—see Precautions.

How Supplied: Librax® Capsules, each containing 5 mg chlordiazepoxide hydrochloride (Librium®) and 2.5 mg clidinium bromide (Quarzan™)—bottles of 100 and 500.

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MEDICO - LEGAL DIALOG

Travel Expense Deductions

John T. Mooresmith

General Counsel, MASA

The topic of travel expense deductions is very important to physicians due to the number of professional conventions, seminars and medical association business meetings which physicians must attend. The Internal Revenue Service is examining more closely the circumstances surrounding the expenses incurred by professional persons on such occasions.

In a recent ruling the IRS denied a physician's deductions for travel expenses incurred on a trip to medical seminars abroad.

The case involved a physician who attended six two-hour seminars during a two-week trip to two foreign countries. In addition to attending the seminars, the doctor took sidetrips to several tourist attractions. The IRS ruled that in this case the cost of the trip was not deductible because the twelve hours of seminars were not sufficient to change "what was essentially a vacation trip into a business trip."

In making the ruling, the IRS referred to sections of the Income Tax Regulations which state that travel expenses are deductible only if the total amount of time spent on a trip is primarily for business purposes. If more time is spent on pleasure than business, the only deductions allowed are those directly related to the seminars themselves.

These regulations are not new, but are now being interpreted more strictly than in the past.

The expenses of a physician are, in general, deductible if the trip was primarily to further his practice or improve his professional skills. In determining the primary purpose of a trip, the most important factor is the number of days spent on professional as opposed to personal pursuits. The process of determination need not be totally mechanical. For example, a surgeon might find it necessary to journey in order to observe a certain procedure. He could still consider the trip as business even though he spent several additional days visiting friends. The extent to which he could take deductions is considered below.

Attendance at meetings of medical societies and conventions ordinarily qualifies as a professional activity. The IRS did, however, issue a news release this year stating that it would closely scrutinize certain conventions, cruises and trips during which only a small portion of the time is devoted to business activity. If it appears that the primary purpose of an individual's attendance was to take a vacation, the expenses will be disallowed.

In general, when traveling abroad only that portion of the total expenses attributable to business is deductible. Expenses of a trip abroad are not deductible to the extent that they are allocable to personal activities. Assume, for example, that a physician traveled to Brazil primarily for a professional purpose. However, only eight days of his two weeks of traveling were devoted to professional activities. Only eight-fourteenths of

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LUFYLLIN® (dyphylline)

Before prescribing, please review complete product information, a summary of which follows:

Indications: For relief of acute bronchial asthma and for reversible bronchospasm associated with chronic bronchitis and emphysema.

Precautions: Exercise caution with use in the presence of severe cardiac disease, renal or hepatic malfunction, glaucoma, hyperthyroidism, peptic ulcer, and concomitant use of other xanthine-containing formulations or other CNS stimulating drugs.

Adverse Reactions: May cause nausea, headache, cardiac palpitation and CNS stimulation. Postprandial administration may help to avoid gastric discomfort.

How Supplied:

LUFYLLIN, 200 mg., Tablets: NDC 19-R521-92, bottle of 100; NDC 19-R521-97, bottle of 1000.

LUFYLLIN Elixir: NDC 19-R515-68, pint bottle; NDC 19-R515-69, gallon bottle.

LUFYLLIN Injection: NDC 19-R537-T2, box of 25 x 2 ml. ampuls.

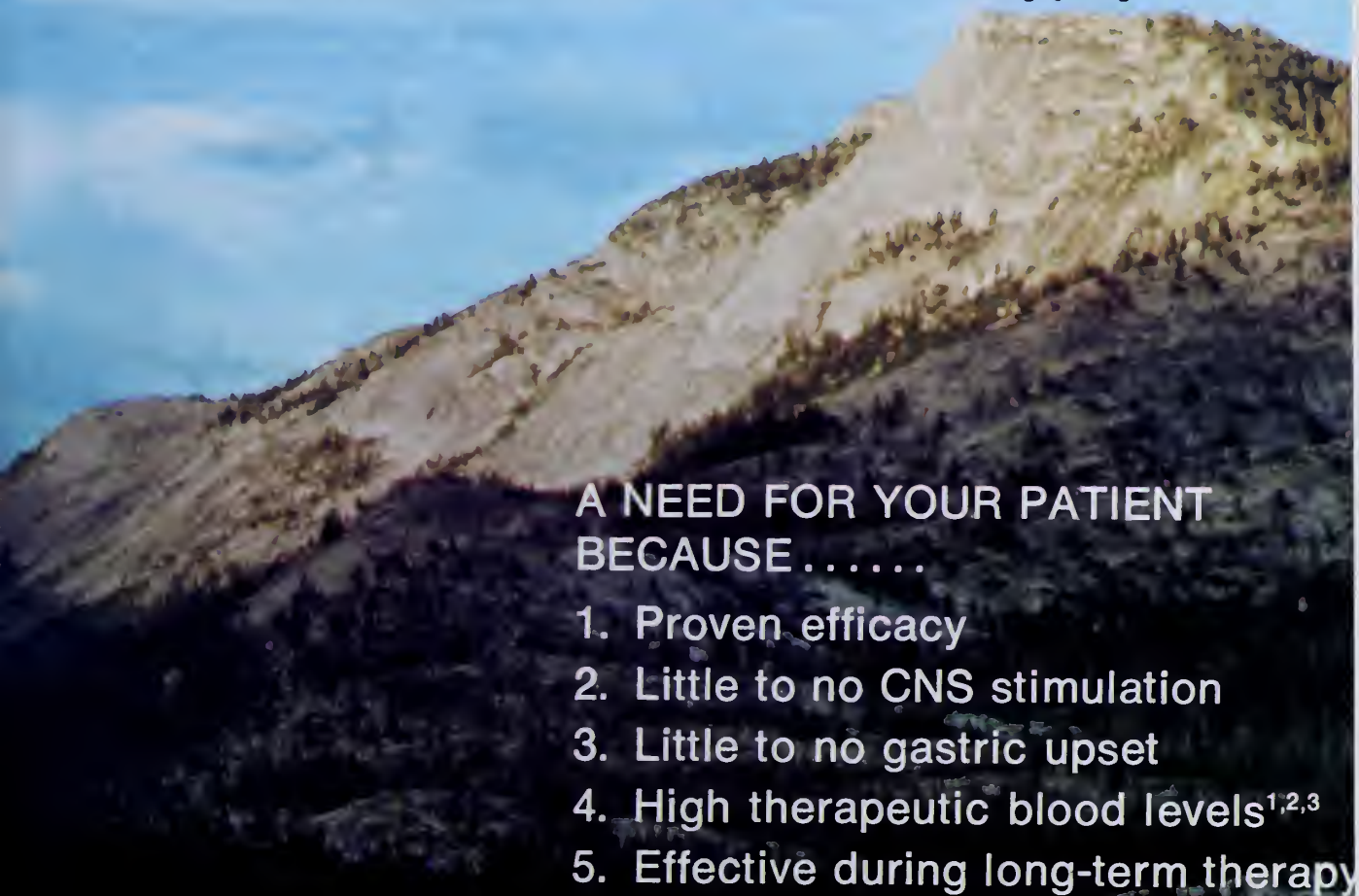
For relief of acute bronchial asthma and for reversible bronchospasm associated with chronic bronchitis and emphysema.

LUFYLLIN® (dyphylline)

...a basic need for the bronchospastic patient.

Tablets: 200 mg dyphylline
Elixir: per 15 ml: dyphylline 100 mg, alcohol 20% v/v

the bronchodilator with a difference...dyphylline.



A NEED FOR YOUR PATIENT BECAUSE.....

1. Proven efficacy
2. Little to no CNS stimulation
3. Little to no gastric upset
4. High therapeutic blood levels[1,2,3]
5. Effective during long-term therapy
6. Only 1/5 the toxicity of theophylline or aminophylline[4,5,6] (based on animal studies)

REFERENCES

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Mallinckrodt Pharmaceuticals *Linking Chemistry to Medicine®*

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St. Louis, Missouri 63147

(Continued From Page 433)

the trip's expenses are deductible. His expenses of board and lodging on the days when his professional activities were conducted are deductible. No such allocation is necessary if the trip lasts no more than one week and less than twenty-five per cent of the time away from home is spent on personal matters. The days spent enroute on such a trip are counted as business days.

The above rules did not, however, apply to travel within the United States. The difference is that all expenses enroute are deductible when traveling domestically, so long as the trip is primarily for a business or professional purpose.

Another question which frequently arises is whether the expenses of spouses are deductible when they go along on a business trip. There are two critical questions in determining this issue. First, whether the dominant purpose of the spouse's trip was to serve the other spouse's business or professional purpose in making the trip; and second, whether the accompanying spouse actually spent a substantial amount of time in assisting the other in fulfilling that purpose.

In ruling on this question, courts have consistently refused to allow deduction of the spouse's portion of expenses when their business role was only nominal. It has not been sufficient that the other spouse was assigned incidental secretarial tasks or a minor role in arranging activities. More generally, unless employed in a bona fide capacity, one spouse must be required because of the other's business needs to make the trip.

One case in which the court did allow deductions of a spouse's expenses on a business trip involved Roy Disney, brother of the famous cartoonist. In order to represent properly its image abroad, the Disney company insisted that its executives should be accompanied by their wives. In light of this policy, the court found that the company's reimbursement of Mrs. Disney's expenses was proper.

It is very important to remember that substantiation of this kind of travel and entertainment expense is also necessary. No deductions will be allowed for any travel or entertainment expenses unless the following elements are substantiated:

(1) The amount of the expense or other item;

(2) the time and place of the travel or entertainment;

(3) the business or professional purpose of the expense or other item; and

(4) the business or professional relationship of the person entertained.

Substantiation of travel or entertainment expenditures should be kept in an account book, diary, statement of expense or similar record (supported by adequate documentary evidence) that is sufficient to establish the above elements.

Only the key points in considering whether an expense is deductible have been touched by this article. Before incurring substantial travel expenses which have some business connection, a physician would be well-advised to consult his attorney as to the tax aspects of the trip, or contact Mr. John J. (Jack) Mooresmith, General Counsel, MASA, 19 S. Jackson, Montgomery, Alabama 36104.

LOCUM TENENS

Temporary staff positions are available for primary care physicians in an interdisciplinary program of comprehensive care for multiply handicapped retarded children and adults at the Partlow State School and Hospital (State of Alabama—Department of Mental Health). Alabama license required. Salary $2500 a month. Address inquiries to: Dr. Richard Buckley, Superintendent, Partlow State School and Hospital, P. O. Box 1730, Tuscaloosa, Alabama 35401. Telephone: (205) 553-4550.

Aspects of the Medical Basis of Disability Determination Under Social Security

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Medical Consultant
State Agency for Disability Determination
2800 Clairmont Avenue
Birmingham, Alabama 35233

Applications for disability under Social Security and under the Supplemental Security Income Plan all depend on the existence of physical or mental impairments which prevent work considered to be substantially gainful activity, for a continuous period of not less than twelve months. The essence of determining the severity of medical impairment depends on the medical report signed by a duly licensed physician—including the classical triad of history, physical examination and laboratory findings—laboratory being used in the broad sense of diagnostic tools from amylase to urography. It is the purpose of this essay to stress the criteria which are critical to determinations, since disability decisions are made on the supporting signs and laboratory findings that are reported—i.e. they cannot be made on the basis of clinical judgments alone regarding diagnosis, prognosis, or remaining capacity to work, without the supporting data that would enable an independent reviewer to draw a similar conclusion;—and the information has to be in the claimant's file:—reported.

Disability is an administrative decision based on the objective description of medical impairment related to age, work experience, education, and remaining functional capacity. The remaining functional capacity assessment has validity in proportion to the support it has by demonstrated medical findings. The requirement of supporting evidence is needed, not just a judgment that individuals should not perform certain activities. It is apparent that the restriction imposed by certain medical impairments would not be equivalent in the thirty year claimant with education and the fifty-eight year claimant with forty years of a single laboring experience.

It is intended to briefly mention a series of classical problems that continue to arise, indicating why they are problems and what might have prevented them through clarification. This should not be construed as comprehensive, but merely basic concerning information sufficient for fair decisions in this system, being supportive to the disabled person on one hand, and responsible to Social Security and general tax revenues on the other.

The major body systems and disease categories will be mentioned with an example or more under each one. The frequency of system involvement is comparable to the general morbidity and mortality statistics.

Cardiovascular problems predominate, either with ischemic disease or congestive heart failure. Both of these require adequate history. Congestive heart failure should at some point in time have presented typical clinical signs, and electrocardiographic evidence is pertinent to both. Copies of ECG's are most substantial information, and descriptions of lung x-rays with cardio-thoracic ratios are substantial. In the instances of myocardial infarction associated thereafter with disabling angina or C. H. F., the ECG and enzyme corroboration of diagnosis is persuading.

One mentions hypertensive vascular disease because the decisions rest on the results of hypertension (diastolic pressures consistently over 100 mm. hg.), i.e. one needs to know about retinopathy (fully described, not just "class II," as such introduces uncertainty because of variable classifications and subjective interpretations); impaired renal function with its laboratory variations as in BUN, creatinine, or creatinine clearance; ce-

rebrovascular damage as with residual from stroke; and C. H. F. or angina pectoris. It is necessary that adjudication be based on the present state of health, not the future state. While prognosis for severe hypertension is subject to many vagaries, it is possible to determine only at the present on the already existent effects of hypertensive disease, not what "might happen" except where clues such as azotemia and severe retinopathy are already being assessed as disabling impairments.

In the disorders of the respiratory system the causes of disability will probably rest in the results from chronic recurrent infection, communicability, pulmonary insufficiency, or from a combination of these factors. Pulmonary tuberculosis has been changed by modern therapy so that positive cultures three months after onset of disability are unusual; critical to the diagnosis is culture diagnosis. The greatest number of pulmonary determinations rest on pulmonary insufficiency based on spirometric evidence—with added use of arterial blood gases, diffusion measurements, etc. in special cases. Spirometry has to be quality to be useful. (The frequent malignancies of the lung are included later under neoplastic diseases.)

Digestive system disorders that are severe and prolonged enough to cause inability to work for twelve months or longer, usually do so because of interference with nutrition, multiple recurrent inflammatory lesions, or complication of disease such as fistulae. Peptic ulcer is an uncommon cause because of lack of duration; if disabling most commonly the problems follow definitive types of surgical procedures for peptic disease. With peptic disease, chronic ulcerative colitis and the enteritides malnutrition usually is manifest—and (of course) G-I problems lend themselves to x-ray and laboratory assessment quite uniformly.

The genito-urinary system tends to be cause of disability when renal insufficiency has developed—whatever the etiology, the primary evidence being azotemia and reduced creatinine clearance. When correction is made by dialysis and transplant procedure, coverage is allowable for a period of time thereafter until correction is seen as secured. With diseases necessitating urinary diversion, the decision rests on renal function and on whether hydronephrosis is progressive. The loss of one kidney is evaluated by the integrity of the remaining one.

The hemic and lymphatic systems have posed larger problems with childhood coverage. Sickle cell disease is determined on usual hematocrit levels, crises with drops in hematocrit, proof of disease as by hemoglobin electrophoresis, and (of course) the related factors of developmental delay and secondary pathology. The leukemias are evaluated individually as are bone marrow failure, coagulation defects, etc. Again precise laboratory results are the substance of these cases. Needed are bone marrow reports, pathology reports, etc. As in all areas, the statement that there is the presence of a dread sounding categorical disease leads to naught except with the assessment of the case in question.

The endocrine system poses occasional questions regarding thyroid, adrenal, parathyroid, and pituitary glands; but chiefly comes into determinations in diabetes mellitus. Here, as with hypertension, the diabetes mellitus is not the deciding factor, but the effects of diabetes on neuropathy, vascular disease, eye disease,—target organ effect. Hyperglycemia, "brittleness," poor patient cooperation—these become determinative after they have led to end organ damage.

Multiple body system impairments require quite individual assessment—disseminated lupus erythematosis, scleroderma, polyarteritis, etc. demand laboratory proof and objective clinical evaluation. Present day medical management has permitted continued productive activity in many persons exhibiting these illnesses.

The neurological disorders most commonly involve cerebrovascular accidents, epilepsy, brain tumors, and the whole gamut of degenerative, toxic, infectious, unknown etiological, and hereditable diseases. CVA's generally require a few (four, usually)

months to assess residual—i.e. determine duration of disability. Epilepsy needs EEG substantiation and evidence of lack of control under prescribed therapy. Pathological and operative reports are essential to brain tumor decisions. The meticulous description of the neurological examination provides evidence of severity as regards motor weakness, uncoordination, gait problems, bulbar signs, etc. One needs the description of severity of signs, not just the statement of a diagnosis even when it bears poor prognosis.

Mental disorders are depressingly common. Here the clinical detail is very important whether one is dealing with chronic brain syndromes, or the functional psychotic and non-psychotic disorders. The ability to function is determinative—i.e. a categorical diagnosis is no help; it requires assessment of interests, activities, and relationship of patient with other people. Mental deficiency determinations deal primarily with I. Q. measurements. Of course, in borderline situations, the presence or absence of other vocationally relevant impairments are determinative.

The malignant neoplastic diseases should be quite precisely decided: chief needs are for full operative reports and pathology reports. The determination of remote metastases makes a great difference, as well as lack of resectability, recurrence after radical resection, and significant post-therapeutic residuals. There are considerations made for hormone dependent tumors and for the present day chemotherapeutic modalities. In the instance of radiation therapy the purpose—definitive, preoperative, or palliative—being stated is helpful. As a generalization (and as one would expect) allowance for tumor is based primarily on therapeutic failure, or evidence of the inevitability of therapeutic failure. As in all the disorders, one is considering the status of the patient now—at the time of adjudication.

The musculoskeletal system was not left for last because of its infrequency as a problem. It is an area of great difficulty requiring careful delineation of physical findings, and careful relationship of these findings to the remaining capacity to function as a worker. The problems with injuries often have to do with duration, i.e. not lasting twelve months, just as do some of the surgical problems such as herniated mucleus pulposus. One can advise that specific statements regarding range of motion, correlation of reflex, sensory, pain, and motor variations in syndromes with compression of nerve root, and reasons for expected long duration such as non-union are essential. One reason for misunderstanding has to do with the fact that many patients, younger especially, may be "disabled" from their previous occupations but able to do substantially gainful activity in another field of endeavor. Also, as mentioned earlier, the responsibility is to make a decision on the status of the patient at this point of time—more remote and uncertain prognostic ideas may not be considered pertinent.

In summary, the policy is to rely on medical findings rather than interpretations. In fact, included in the covering legislation is the statement that an impairment must be "----- demonstrable by medically acceptable clinical and laboratory diagnostic techniques." For this basic reason the following are so helpful in making determinations for your patients:

1) x-ray reports;

2) electrocardiogram copies;

3) pulmonary function results, capped with spirogram copies;

4) all of the components of nerve root compression syndromes;

5) adequate description of the status of person with mental disease diagnosis;

6) laboratory values as in renal disease, cirrhosis, sickle cell disease, leukemias;

7) pathology and operative reports in malignant disease;

8) the physical findings on which a diagnosis is based;

9) an adequate history to substantiate that abnormalities as in x-rays of the

spine or an electrocardiogram are symptomatic;

10) and the assessment of functional capacity as compromised by the medical problem.

The validity of functional assessment, regardless of the derivation, is directly proportional to the extent the assessment is supported by medical findings. The use of copies of hospital summaries, consultations, laboratory and x-ray reports, and other material developed during the care of the patient are very effective when presented. Remember that "disability" is effected by severity and duration.

While the above paragraphs are based on laws and regulations covering disability determination, emphasis and synthesis are those of the writer and are not to be construed as official; however, evaluating criteria is available to reporting sources from the Disability Determination Services of the separate states doing these adjudications for the Social Security Administration.

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pate in the "Reach To Recovery" program if the need ever arose for them.

Clearly, it would be a great mistake to exaggerate the emotional reaction of women to breast removal. It is unlikely that the strong aversion of women to breast loss could by itself account for all the fears of women regarding breast surgery. Rather, the fear of cancer appears to be the more important deterring factor. If this is so, we can infer that increasing the confidence of women in survival chances after breast removal would contribute significantly in acceptance of extensive surgery. Moreover, a realization of the extent to which early detection increases survival rates could also reduce the inhibiting effect of worry upon the desire for frequent breast examinations.

PRESCRIBING INFORMATION

Antiminth (pyrantel pamoate) Oral Suspension

Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13μg/ml.) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with pre-existing liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

Dosage and Administration. *Children and Adults:* Antiminth Oral Suspension (50 mg. of pyrantel base/ml.) should be administered in a single dose of 11 mg. of pyrantel base per kg. of body weight (or 5 mg./lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 cc. of Antiminth per 10 lb. of body weight. (One teaspoonful = 5 cc.)

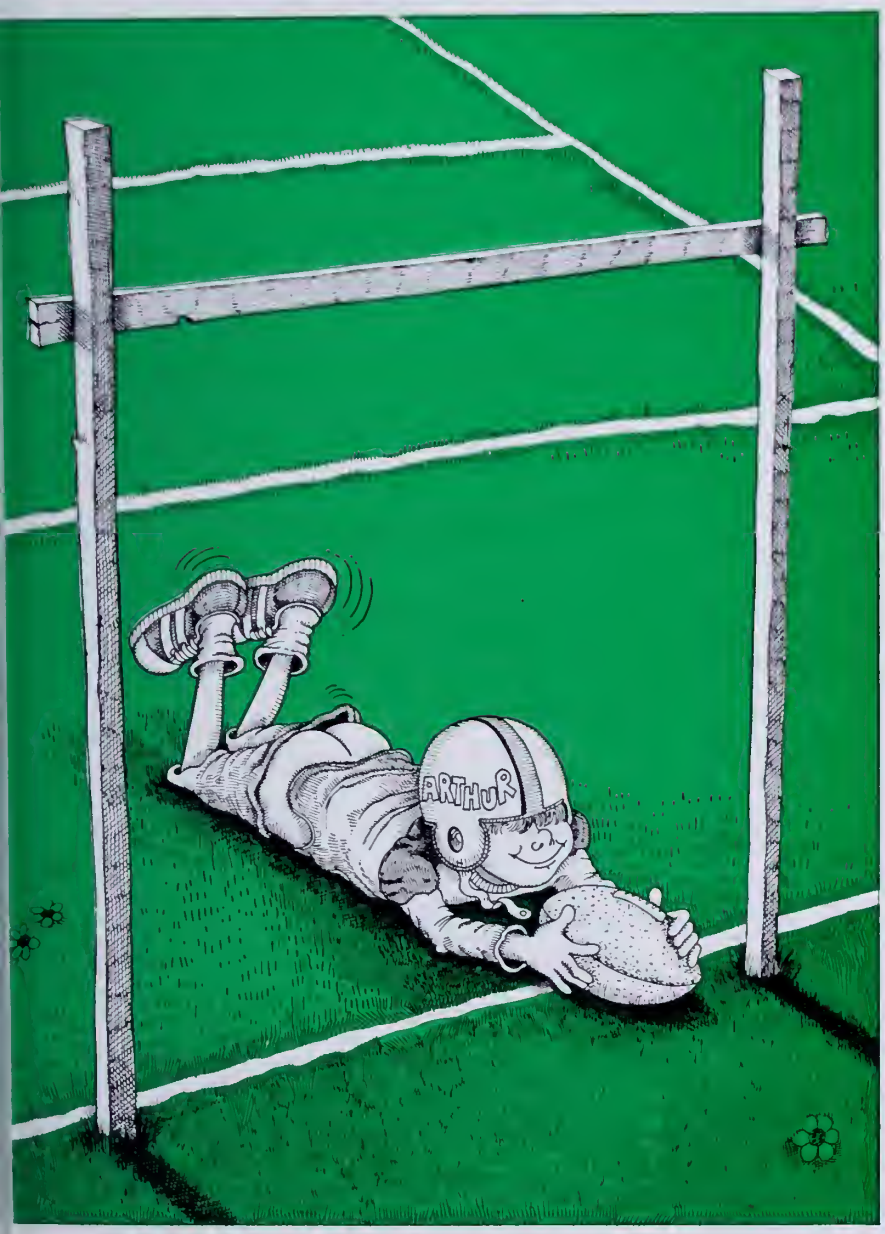
Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

How Supplied. Antiminth is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg. pyrantel base per ml., supplied in 60 cc. bottles and Unitcups™ of 5 cc. in packages of 12.

ROERIG Pfizer

A division of Pfizer Pharmaceuticals
New York, New York 10017

WORMS BLITZED



A single dose of Antiminth (1 cc. per 10 lbs. of body weight, 1 tsp./50 lbs.—maximum dose, 4 tsp=20 cc.) offers highly effective control of *both* pinworms and roundworms.

Antiminth has been shown to be extremely well tolerated by children and adults alike in clinical studies.* Pleasantly caramel-flavored, it is non-staining to teeth and oral mucosa on ingestion... doesn't stain stools, linen or clothing.

One prescription can economically treat the entire family.

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Pinworms, roundworms controlled with a single, non-staining dose of

ANTIMINTH®
(pyrantel pamoate)

equivalent to 50 mg. pyrantel/ml.

ORAL SUSPENSION

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Please see prescribing information on facing page.

PHYSICIAN PLACEMENT SERVICE IN ALABAMA

The Physician Placement Service of the Medical Association of the State of Alabama is designed to assist both physicians and communities. MASA members having knowledge of practice opportunities or wishing to relocate their own practices are urged to communicate with the Placement Service. For further information: write Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, 19 South Jackson Street, Montgomery, Alabama 36104, or Telephone 263-6441.

Locations Wanted

General Practice—

Age 33; University of Saskatchewan, 1965; Board eligible; seeking associate or group practice. LW-1

Age 30; University of Kansas, 1970; Board certified; seeking associate or group practice. Available July 1975. LW-1/1

Age 33; Albany University, 1972; National Board; seeking solo, associate, group or industrial practice. Available March 1975. LW-1/2

Internal Medicine—

Age 32; Louisiana State University, 1967; Board certified; seeking associate, group or institutional practice. Available July 1975. LW-4/10

Age 31; University of Oklahoma, 1970; Board eligible; seeking group practice. Available July 1975. LW-4/11

Age 31; Downstate Medical Center, 1968; National Board, Board certified; seeking associate, group or institutional practice (interest in cardiology); Available July 1975. LW-4/13

Age 31; Medical College of Georgia, 1968; Board eligible; seeking associate practice in North Alabama or coastal area. Available July 1975. LW-4/4

Age 33; Medical College of South Carolina, 1966; Board certified; seeking group or associate. Available September 1975. LW-4/5

Age 32; University of Arkansas 1968; Board eligible; seeking associate, group or institutional practice (interest in pulmonary medicine). Available July 1975. LW-4/12

Age 29; Medical College of Georgia, 1971; National Board; Available July 1975. (internal medicine-gastroenterology) preferably South Alabama, Mobile. LW-4/16

Age 32; Ohio State University, 1968; Board certified; seeking associate or group practice (interest in gastroenterology). Available September 1975. LW-4

Obstetrics-Gynecology—

Age 32; Medical College of Georgia, 1968; Board eligible; seeking associate practice. Available July 1975. LW-5

Ophthalmology—

Age 31; Vanderbilt, 1968, National Board; Available July 1975. LW-10/2

Age 31; Vanderbilt University 1968; National Board; Available July 1975. LW-10/1

Age 29; Baylor University, 1971, seeking associate or institutional practice. Available July 1975. LW-10/4

Pediatrics—

Age 30; Georgetown Medical School, 1970; National Board; Board eligible; seeking associate, group, industrial practice. Available July 1975. LW-7/4

Age 30; Osmania University, 1966; Board certified; seeking group, industrial or institutional practice. Available February 1975. LW-7/5

Radiology—

Age 31; University of Texas, 1969, Board eligible, seeking associate or group practice (diagnostic radiology). Available July 1975. LW-11

Age 30; University of Alabama, 1970; Board eligible; National Board; seeking associate, industrial or institutional practice. Available July 1975. LW-11/1

Surgery—

Age 32; New York Medical College, 1968; National Board, Board certified; seeking solo, associate or group practice. Available July 1975. LW-8/2

Age 34; Bowman Gray 1966; Board certified; seeking associate or group. Available August 1975. LW-8/3

Urology—

Age 31; Case Western Reserve, 1968, Board eligible, seeking associate, group or academic position. Available May-June 1975. LW-9/5

Age 39; Cornell University, 1961; Board certified; National Board; seeking associate or group practice. LW-9/4

Physicians Wanted

General Practitioners—

Unique opportunity for Family Practice in city of 40,000 population, located in Central Alabama. Good location for outdoor activities, near larger cities. PW-1

Opportunity for General Practitioner in Central Alabama community with a trade area of 30,000 to 35,000 population. Nearest large city, 10 miles, 135,000 population. Established practice available due to recent death of physician. Financial assistance available to offset moving expenses. PW-2

Opportunity for General Practitioner in town of 3,000 population located in west Alabama in trade area of 20,000 population. There is a 30-bed hospital in the town. Nearest large city is 50 miles distant, population of 150,000. The Medical Clinic Board is authorized by the town to provide office space and arrange adequate housing. Farming and industry in the community. Churches, schools and recreational activities. PW-3

Opportunity for General Practitioner in town of 2,000 population in trade area of 4,300 population located in south Alabama. Nearest hospital located 17 miles away in the nearest large city of 36,000 population. A physician was in the town until his retirement three years ago. Office space and housing readily available. Farming and textile industry. School, churches and service clubs. PW-4

Physician wanted for general practice in town of 7,000 population with trade area of 15,000 population located in central Alabama. 35-bed hospital located in town. Office space available near hospital. Nearest large city with population of 50,000 is 30 miles away. Numerous churches and schools. Lumber and textile industry. Recreational activities and civic clubs. PW-8/2

Physician wanted for general practice, group or associate, in University town of 40,000 population. Salary and partnership negotiable. PW-1/1

Associate wanted in a three physician general practice in a rural county near Mobile. Salary initially with anticipated early partnership arrangement. 30-bed county hospital adjoining the office. PW-3/3

General Practitioner wanted for associate practice with two Family Practitioners ages, mid-thirties. New 100-bed hospital, new office building being designed adjacent to hospital. Fulltime after hours E. R. Coverage. Located in North Alabama mountain lakes region. Town of over 13,000 population. Excellent school systems, public and parochial. Two liberal arts colleges and a Technical college in the county. Invitation to visit with expenses paid will be directed to those qualified. PW-5

Special Openings—

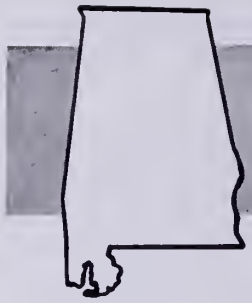
One or more **Pediatricians** and one or more **Internal Medicine** and/or **Family Practitioners** wanted in town located in northwestern section of the state. 63-bed general short term acute city-owned hospital, accredited by JCAH. The City has built a modern, new clinic building adjacent to the hospital. Office suites available rent free for first 12 months. Salary offered to physicians by the city for the first 6 months, non-refundable. PW-20

Physician wanted for Occupational Health Clinic at Space Flight Center, Huntsville, Alabama. Board certified or eligible in occupational medicine, aerospace medicine, or internal medicine. No week ends or night duty. PW-21

Emergency Physicians, P. A. provides physicians for several Birmingham hospitals. EPPA is a fee for service professional corporation. Join a four-man group, salary, bonus, paid vacation, medical meeting, disability, life, health and professional liability insurance, 44-hour work week. Stock ownership in the P. A. is available as a percentage of profits. PW-22

Wanted—2 Internists, 2 Ob-Gyn, 2 Pediatricians, 1 Urologist, 1 Anesthesiologist. Fee for service basis, Gross guarantee 1st and 2nd year. New office space to be available next to hospital. 100-bed hospital, modern well equipped, fulltime radiologist and pathologist. Two general surgeons and 9 general practitioners now serving population base 40,000. Unemployment in area less than one percent. Excellent recreation area. Invitations to visit with expenses paid will be directed to those qualified. PW-12

General Surgeon and Ophthalmologist wanted for community of 22,000 population and 45,000 service area. New hospital with eight general practitioners and one Board certified radiologist. Schools for blind and deaf located in the town. Excellent schools and recreational facilities. PW-11



around the state

Vital Statistics

NEW MEMBERS

Cullman County

Holloway, Clyde Layne, b 39, mc Kentucky 66, recip. Kentucky 71, 116 2nd St., S. E., Cullman, Ala. 35055. GP.

Mobile County

Henderson, Jesse Lowe, b 17, mc Tulane Univ. 44, recip. Miss. 72, 1600 Center Street, Mobile, Ala. 36604. Or.

Hughes, Edwin Ross, b 28, mc Utah 57, recip. Arkansas 73, 2451 Fillingim St., Mobile, Ala. 36617. Pd.

Mendenhall, Hiram Wayne, b 28, mc California 52, recip. Fla. 73, 2451 Fillingim St., Mobile, Ala. 36617. ObG.

Montgomery County

Jehle, Lawrence Thomas, Jr., b 41, mc Alabama 67, sb 68, 750 Washington Ave., Montgomery, Ala. 36104. Oph.

Simmons, Earl Malcolm, Jr., b 28, mc Alabama 56, sb 57, 2119 E. So. Blvd., Montgomery, Ala. 36111. C-ThS.

Morgan County

Iser, Martin, b 41, mc Kentucky 67, recip. Kentucky 71, Highway 31 North, Hartselle, Ala. 35640. GP.

Shelby County

Nolen, Thomas McCotrie, b 48, mc Univ. of Tenn 73, recip. Tenn. 74, Columbiana Clinic, P. A., P. O. Box 1006, Columbiana, Ala. 35051. GP.

Talladega County

Hagler, John Percy, Jr., b 46, mc Univ. of Ala. 73, recip. NBME 74, P. O. Box 483, Talladega, Ala. 35160. GP.

Papagni, Mario Bart, b 37, mc Univ. of Bologna, Italy 67, sb 74, P. O. Box 356, Talladega, Ala. 35160. S.

MEMBERS DECEASED

Choctaw County

Gully, Virgil Samuel, Butler, Alabama, Deceased

Covington County

Matthews, Clifford Newell, Florala, Alabama, Deceased 1/8/75

Fayette County

McNease, Benjamin Wilberne, Fayette, Alabama, Deceased 11/11/74

Franklin County

Pritchard, Tyrus Raymond, Russellville, Alabama, Deceased 11/4/74

Jefferson County

Wilson, Charles Henry, Birmingham, Alabama, Deceased 12/21/74

Montgomery County

Johnson, Herbert Cecil, Montgomery, Alabama, Deceased 12/24/74

Thigpen, Francis Marion, Montgomery, Alabama, Deceased 12/18/74

(Continued on Page 447)



Putting out the fires of arthritic pain

Rheumatoid arthritis can sometimes spread like wildfire, with joint after joint going up inflamed: "The usual onset is manifested by spotty joint involvement but an acute onset of symmetrical polyarthritis may be noted."*

If aspirin fails, consider Butazolidin alka. Giving one capsule four times a day often provides prompt, pain-relieving, anti-inflammatory action to help restore joint mobility. The results you can get within a week can be maintained on as little as one or two capsules daily.

Serious side effects can occur. Select patients carefully (particularly the elderly) and follow them closely in line with the drug's precautions, warnings, contraindications and adverse reactions. For full details, please read the prescribing information. It's summarized on the back of this page.

Butazolidin® alka

Each capsule contains:
100 mg. phenylbutazone USP
100 mg. dried aluminum hydroxide gel USP
150 mg. magnesium trisilicate USP

If it doesn't work in a week, forget it.



Butazolidin® alka

Each capsule contains:
100 mg. phenylbutazone USP
100 mg. dried aluminum hydroxide gel USP
150 mg. magnesium trisilicate USP

If it doesn't work in a week, forget it.

Ragan, C.: The Clinical Picture of Rheumatoid Arthritis, in Arthritis, ed. 8, edited by J. L. Hollander and D. J. McCarty, Jr., Philadelphia, Lea & Febiger, 1972, chap. 21, p. 335.

Geigy

Fire fighter for arthritic flare-ups.

Important Note: This drug is not a simple analgesic. Do not administer casually. Carefully evaluate patients before starting treatment and keep them under close supervision. Obtain a detailed history, and complete physical and laboratory examination (complete hemogram, urinalysis, etc.) before prescribing and at frequent intervals thereafter. Carefully select patients, avoiding those responsive to routine measures, contraindicated patients or those who cannot be observed frequently. Warn patients not to exceed recommended dosage. Short-term relief of severe symptoms with the smallest possible dosage is the goal of therapy. Dosage should be taken with meals or a full glass of milk. Substitute alka capsules for tablets if dyspeptic symptoms occur. Patients should discontinue the drug and report immediately any sign of fever, sore throat, oral lesions (symptoms of blood dyscrasia), dyspepsia, epigastric pain, symptoms of anemia, black or tarry stools or other evidence of intestinal ulceration or hemorrhage, skin reactions, significant weight gain or edema. A one-week trial period is adequate. Discontinue in the absence of a favorable response. Restrict treatment periods to one week in patients over sixty.
Indications: Rheumatoid arthritis, osteoarthritis, bursitis, acute gouty arthritis and rheumatoid spondylitis.
Contraindications: Children 14 years or less, senile patients, history or symptoms of G.I. inflammation or ulceration including severe, recurrent or persistent dyspepsia, history or presence of drug allergy, blood dyscrasias, renal, hepatic or cardiac dysfunction, hypertension, thyroid disease, systemic edema, stomatitis and salivary gland enlargement due to the drug, polymyalgia rheumatica and temporal arteritis, patients receiving other potent chemotherapeutic agents, or long-term anticoagulant therapy.
Warnings: Age, weight, dosage, duration of therapy, existance of concomitant diseases, and concurrent potent chemotherapy affect incidence of toxic reactions. Carefully instruct and observe the individual patient, especially the aging (forty years and over) who have increased susceptibility to the toxicity of the drug. Use lowest effective dosage. Weigh initially unpredictable benefits against potential risk of severe, even fatal, reactions. The disease condition itself is unaltered by the drug. Use with caution in first trimester of pregnancy and in nursing mothers. Drug may appear in cord blood and breast milk. Serious, even fatal, blood dyscrasias, including aplastic anemia, may occur suddenly despite regular hemograms, and may become manifest days or weeks after cessation of drug. Any significant change in total white count, relative decrease in granulocytes, appearance of immature forms, or fall in hematocrit should signal immediate cessation of therapy and complete hematologic investigation. Unexplained bleeding involving CNS, adrenals, and G.I. tract has occurred. The drug may potentiate action of insulin, sulfonylurea, and sulfonamide-type agents. Carefully observe patients taking these agents. Nontoxic and toxic goiters and myxedema have been reported (the drug reduces iodine uptake by the thyroid). Blurred vision can be a significant toxic symptom worthy of a complete ophthalmological examination. Swelling of ankles or face in patients under sixty may be prevented by reducing dosage. If edema occurs in patients over sixty, discontinue drug.
Precautions: The following should be accomplished at regular intervals. Careful detailed history for disease being treated and detection of earliest signs of adverse reactions, complete physical examination including check of patient's weight, complete weekly (especially for the aging) or an every two week blood check, pertinent laboratory studies. Caution patients about participating in activity requiring alertness and coordination, as driving a car, etc. Cases of leukemia have been reported in patients with a history of short- and long-term therapy. The majority of these patients were over forty. Remember that arthritic-type pains can be the presenting symptom of leukemia.
Adverse Reactions: This is a potent drug, its misuse can lead to serious results. Review detailed information before beginning therapy. Ulcerative esophagitis, acute and reactivated gastric and duodenal ulcer with perforation and hemorrhage, ulceration and perforation of large bowel, occult G.I. bleeding with anemia, gastritis, epigastric pain, hematemesis, dyspepsia, nausea, vomiting and diarrhea, abdominal distention, agranulocytosis, aplastic anemia, hemolytic anemia, anemia due to blood loss including occult G.I. bleeding, thrombocytopenia, pancytopenia, leukemia, leukopenia, bone marrow depression, sodium and chloride retention, water retention and edema, plasma dilution, respiratory alkalosis, metabolic acidosis, fatal and nonfatal hepatitis (cholestasis may or may not be prominent), petechiae, purpura without thrombocytopenia, toxic pruritus, erythema nodosum, erythema multiforme, Stevens-Johnson syndrome, Lyell's syndrome (toxic necrotizing epidermolysis), exfoliative dermatitis, serum sickness, hypersensitivity angiitis (polyarteritis), anaphylactic shock, urticaria, arthralgia, fever, rashes (all allergic reactions require prompt and permanent withdrawal of the drug), proteinuria, hematuria, oliguria, anuria, renal failure with azotemia, glomerulonephritis, acute tubular necrosis, nephrotic syndrome, bilateral renal cortical necrosis, renal stones, ureteral obstruction with uric acid crystals due to uricosuric action of drug, impaired renal function, cardiac decompensation, hypertension, pericarditis, diffuse interstitial myocarditis with muscle necrosis, perivascular granulomata, aggravation of temporal arteritis in patients with polymyalgia rheumatica, optic neuritis, blurred vision, retinal hemorrhage, toxic amblyopia, retinal detachment, hearing loss, hyperglycemia, thyroid hyperplasia, toxic goiter, association of hyperthyroidism and hypothyroidism (causal relationship not established), agitation, confusional states, lethargy, CNS reactions associated with overdosage, including convulsions, euphoria, psychosis, depression, headaches, hallucinations, giddiness, vertigo, coma, hyperventilation, insomnia, ulcerative stomatitis, salivary gland enlargement.
(B)98-146-070-J (10/71)

For complete details, including dosage, please see full prescribing information.

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Division of CIBA-GEIGY Corporation
Ardsley, New York 10502

BU 10259

(Continued From Page 444)

CHANGES OF ADDRESS

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Kimmich, Haydee De Young, Mobile to 505 Section Street, Fairhope, Alabama 36532.

Calhoun County

Battles, William M., Jr., present Anniston to 411 E. 9th St., Anniston, Ala. 36201.

Bryant, Kirby K., Jr., present Anniston to 411 E. 9th St., Anniston, Ala. 36201.

Hensleigh, John F., present Anniston to 411 E. 9th St., Anniston, Ala. 36201.

Johnson, Roderick G., present Anniston to 411 E. 9th St., Anniston, Ala. 36201.

Kingery, James R., present Piedmont to 212 Rome Ave., Piedmont, Ala. 36272.

McGinnis, Gaston O., present Anniston to 216 E. 8th St., Anniston, Ala. 36201.

Sherrer, John W., present Anniston to 5 W. 22nd St., Anniston, Ala. 36201.

Stewart, James P., present Anniston to P. O. Box 2087, Anniston, Ala. 36201.

Strange, Charles E., present Anniston to 117 E. Francis, Anniston, Ala. 36201.

Coffee County

Lumpkin, Thomas R., University, Ala. to 922 5th Avenue East, Tuscaloosa, Ala. 35401.

Covington County

Williams, Reddoch E., III, Tallahassee, Fla. to Forest Park, Opp, Ala. 36467.

Cullman County

Clemmons, Lowell H., present Cullman to 1420 Mitchell Rd., N. W., Cullman, Ala. 35055.

Crocker, Francis L., present Cullman to 711-2nd Ave., N. E., Cullman, Ala. 35055.

Nixon, Willard L., present Cullman to 1910 Cherokee Ave., S. W., Cullman, Alabama 35055.

Dallas County

Moore, Jasper D., present Selma to 1013 Felix Rd., Selma, Ala. 36701.

Elmore County

Cotlin, Charles S., present Wetumpka to 408 N. Bridge St., Wetumpka, Ala. 36092.

Donald, William J., Millbrook, Alabama to 608 Company St., Wetumpka, Ala. 36092.

Escambia County

Monzingo, George F., present Brewton to P. O. Box 956, Brewton, Ala. 36426.

Smith, Robert R., present Brewton to 103 Elliott St., Brewton, Ala. 36426.

Etowah County

Rowe, Marilyn J. M., present Gadsden to P. O. Box 489, Gadsden, Ala. 35902.

Geneva County

Merrill, Frederick G., Slocomb, Ala. to 3375 Warrington Rd., Montgomery, Alabama 36111.

Jefferson County

Barefield-Pendleton, Tyree J., Bessemer, Ala. to 4541 Bess. Su. Hwy., Roosevelt City, Ala. 35020.

Blanton, James H., present Birmingham to 2000-A Brookwood Medical Center Dr., Birmingham, Ala. 35209.

Browne, William C., present Birmingham to 2000-A Brookwood Medical Center Dr., Birmingham, Ala. 35209.

Duggan, Mell L., present Birmingham to 7901 1st Avenue South, Birmingham, Ala. 35206.

Harris, John W., present Birmingham to 7901 1st Avenue South, Birmingham, Ala. 35206.

Hatzigeorgis, George P., present Birmingham to 1717-11th Avenue South, Birmingham, Alabama 35205.

Latona, Norman A., present Birmingham to 3920 Seven Barks Circle, Birmingham, Alabama 35243.

Lemmon, Gamewell A., present Birmingham to 1025 So. 18th St., Birmingham, Ala. 35205.

Lewis, Irwin, present Birmingham to 200-F, Brookwood Medical Center Drive, Birmingham, Ala. 35209.

Mason, James M., III, present Birmingham to P. O. Box 2641, Birmingham, Ala. 35291.

McCollough, E. Gaylon, present Birmingham to 1224 So. 20th St., Birmingham, Alabama 35205.

McGahey, Travis P., present Birmingham to 4223 Altamont Rd., Birmingham, Alabama 35213.

Moody, William E., present Birmingham to 7901 1st Avenue South, Birmingham, Alabama 35206.

Orso, Ronald W., Fairfield, Alabama to 3701 Rockhill Rd., Birmingham, Ala. 35223.

Parsons, William C., present Birmingham to 2800 Hastings Road, Birmingham, Alabama 35223.

Pittman, James A., Jr., present Birmingham to Office of Dean, UAB Medical Center, Univ. Station, Birmingham, Ala. 35294.

Pitts, William R., present Graysville to P. O. Box 274, Graysville, Ala. 35073.

Poole, William L., Jr., present Birmingham to 2045 Brookwood Medical Center Dr., Suite 21, Birmingham, Alabama 35209.

Ritchey, Hardin M., Birmingham to 8915-4th Ave. South, Birmingham, Ala. 35206.

Stansell, Evelyn L., present Bessemer to 1501 No. 29th Avenue, Bessemer, Alabama 35020.

Sweatman, Carl A., Jr., present Birmingham to 7901 1st Ave., South, Suite 605, Birmingham, Alabama 35206.

Teague, Eldred B., Birmingham, Alabama to 208 Sheridan Lane, Birmingham, Alabama 35216.

Ward, James A., Jr., present Birmingham to 800 Montclair Rd., Suite 203, Birmingham, Ala. 35213.

Lauderdale County

Jeffres, Earl M., present Florence to 332 W. Tenn. St., Florence, Ala. 35630.

Johnson, Donald Lee, present Florence to F-7 Florendale Apts., Florence, Ala. 35630.

Walden, Joe D., present Florence to Box B-A, Florence, Ala. 35630.

Lee County

Mayfield, James R., present Opelika to 1103 Collinwood, Opelika, Ala. 36801.

Madison County

Cotter, Clement P., present Huntsville to 401-Sivley Rd., Huntsville, Ala. 35801.

Hale, Robert B., Jr., present Huntsville to 600 St. Clair Ave., S. W., Huntsville, Alabama 35801.

Hyatt, Arthur J., Owens Crossroads, Ala. to 805 Fackler St., Huntsville, Ala. 35801.

Lester, Richard L., Jr., present Huntsville to 600 St. Clair Ave., S. W., Huntsville, Alabama 35801.

Miles, Gerald P., present Huntsville to 600 St. Clair Ave., S. W., Huntsville, Alabama 35801.

Owen, Alfred P., present Huntsville to 2335 Pansy St., Huntsville, Ala. 35801.

Owens, Annelies H. M., Redstone Arsenal, Ala. to 8003 Louis Drive, S. E., Huntsville, Ala. 35801.

Peeler, Milton B., present Huntsville to 600 St. Clair Ave., S. W., Huntsville, Alabama 35801.

Upchurch, Charles M., present Huntsville to 600 St. Clair Ave., S. W., Huntsville Alabama 35801.

Whitehead, Leslie E., present Huntsville to 805 Fackler St., Huntsville, 35801.

Willice, Robert L., present Huntsville to 101 Governor's Dr., Suite 502, Huntsville, Ala. 35801.

Marengo County

Williams, Gerald N., present Linden, Ala. to P. O. Drawer L, Linden, Ala. 36748.

Marshall County

Tourney, Robert L., present Guntersville to Rt. 2, Box 207, Guntersville, Ala. 35976.

Mobile County

Bell, John M., present Mobile, to P. O. Box 6614, Mobile, Ala. 36606.

Bodie, Charles W., present Mobile to 248 Cox St., Mobile, Ala. 36604.

Brown, Ernest L., present Mobile to 241 Cox St., Box 4481, Mobile, Ala. 36604.

Dudley, Edward A., Jr., present Mobile to P. O. Box 8327, Mobile, Alabama 36608.

Little, Joe H., present Mobile to P. O. Box 154, Mobile, Alabama 36601.

Romendick, Samuel S., Mobile, Alabama, to Point Clear, Ala. 36564.

Sullivan, Francis W., present Mobile to P. O. Box 8327, Mobile, Ala. 36608.

Montgomery County

Averrett, Margaret E., Tuskegee, Alabama, to 3909 Meredith Dr., Montgomery, Alabama 36109.

Cook, Ottis D., present Montgomery to 60 Commerce St., Suite 707, Montgomery, Alabama 36104.

Martin, Farris J., present Montgomery to 2773 Ashley Ave., Montgomery, Alabama 36109.

Robbins, Charles N., present Montgomery to 1722 Pine St., Montgomery, Ala. 36106.

Scanlan, Joseph M., present Montgomery to 1722 Pine St., Montgomery, Ala. 36106.

Smith, Charles H., present Montgomery to 1909 Walnut St., Montgomery, Alabama 36106.

Morgan County

Guice, John R., present Decatur to 1606 Brookmeade Rd., Decatur, Alabama 35601.

Pickens County

Douglas, George C., Reform, Alabama to 1105 Military Rd., Columbus, Miss. 39701.

Tuscaloosa County

Carpenter, Earl L., present Tuscaloosa to 909-D Anna Ave., East, Tuscaloosa, Ala. 35401.

Kimbrough, James E., Grove Hill, Alabama, to 1 Woodland Park, Tuscaloosa, Alabama 35401.

Snow, James S., present Tuscaloosa to 1617 Dearing Pl., Tuscaloosa, Ala. 35401.

NEW TELEPHONE NUMBERS

Bodie, Charles W., Mobile	432-1631
Brown, Ernest L., Mobile	433-2514
Clemmons, Lowell H., Cullman	734-1920
Farrior, James H., Montgomery	288-6780
Hager, Roy T., Montgomery	269-9129
Hagler, John P., Jr., Talladega	362-5700
Henderson, Jesse L., Mobile	432-4429
Holloway, Clyde L., Cullman	734-5627
Hughes, Edwin R., Mobile	476-1345
Iser, Martin, Morgan	773-5451
Jehle, Lawrence T., Jr., Montgomery	834-1938
McCollough, Edward G., Jefferson	933-8731
Mendenhall, Hiram W., Mobile	476-1344
Miller, A. Lamar, Houston	794-4159
Nolen, Thomas M., Shelby	870-5266
Owens, Annelies H. M., Madison	881-4775
Papagni, Mario B., Talladega	362-1270
Shirley, Sheridan W., Jefferson	934-5668
Simmons, Earl M., Jr., Montgomery	288-0557

Smith, James W., Limestone 233-0712

Stallworth, Robert W., Conecuh 578-3793

Williams, Reddoch E., III, Covington 493-7560

MEMBERS TRANSFERRED

Limestone County

Smith, James W., Doctors Building, Sanders St., Athens, Ala. 35611. From Talladega County Medical Society.

Tallapoosa County

Carpenter, Arthur E., Jr., East Tallapoosa Clinic, Dadeville, Ala. 36853. From Chambers County Medical Society.

CHANGE OF LISTING

Jefferson County

Morton, Benjamin F., b 08, mc Rush 33, sb 34, Professional Center, 801 Princeton Ave., Birmingham 35211.

Parsons, William Chunn, Please designate as *Retired* from active practice.

Montgomery County

Case, I. Clark, 118 Ocala Dr., Montgomery, Alabama 36109.

CHANGE OF SPECIALTY

Calhoun County

Battles, William M., Specialty U.

Boozer, Irwin M., Specialty I.

Brannon, Wade H., Specialty O to-A

CHANGE OF COUNTY OFFICERS

Clay County

Campbell, John E., delete as President of Clay County Medical Society.

Perry County

Long, John R., delete as Secretary-Treasurer of Perry County Medical Society.

Tuscaloosa County

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President-Elect—E. M. Daly

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SIGHTS AND SOUNDS

The following films are made available from Eaton Laboratories. You may obtain them by either contacting your local Eaton representative, or by writing to Eaton Medical Films Library, Eaton Laboratories Division, Morton-Norwich Products, Inc., Norwich, New York 13815.

Asepsis In Endoscopy (22-752)

Donald G. Blain, M. D., William H. Boyce, M. D.

This unique film contains scenes from the pioneer film on Prostatic Resection made in 1929 by Doctor Theodore Davis of Greenville, South Carolina.

By comparison, modern endoscopic sterility presents peculiar problems of complex sensitive instruments. The authors present detailed illustrations of the aseptic methods found most satisfactory at their medical center.

16 mm., sound, color, 12 minutes (1966)

The Ileal Sleeve for the Dilated or Adynamic Ureter (22-760)

Victor A. Politano, M. D.

The problem presented by a large dilated, tortuous, atonic ureter with a normally functioning bladder and reasonable renal function is the subject of this film.

In the first of two surgical cases shown, the author selects a four year old child with a typical prune-belly syndrome and a nephrostomy of 2 ½ years duration.

The second case is a 42 year old female with renal tuberculosis. The left kidney has been removed and the right kidney has a nephrostomy insertion of 16 years duration.

The author's use of the ileal sleeve is shown to achieve normal voiding and sterile urine, after removal of the nephrostomy tubes, in both cases. Muscosal stripping of the ileal sleeve is emphasized.

16 mm., sound, color, 22 minutes. (1966)

Pyeloplasty by Modified Ureteroneopyelostomy (22-758)

John W. Dorsey, M. D.

Three cases are presented to illustrate that the method best suited to the individual case must be determined at the time of surgical intervention.

The first case illustrates the classical approach, used with high ureteral insertion with no intrinsic stricture at the ureteropelvic junction. The second illustrates the preservation of an aberrant blood vessel supplying a major portion of the kidney.

The third illustrates the utilization of the Schwyzer-Foley modification combined with ureteroneopylelostomy in the correction of a uretero-pelvic junction stricture.

16 mm., sound, color, 25 minutes. (1966)

Ileal Conduit Urinary Diversion (22-822)

James F. Glenn, M. D.

The details of ileal conduit urinary diversion, accomplished in this case as a therapeutic effort in management of neurogenic disease, are elaborated with emphasis on technique of the ileal renanstomosis, ureteroileal anastomoses, and fashioning of the ileal stoma.

16 mm., sound, color, 20 minutes (1971)

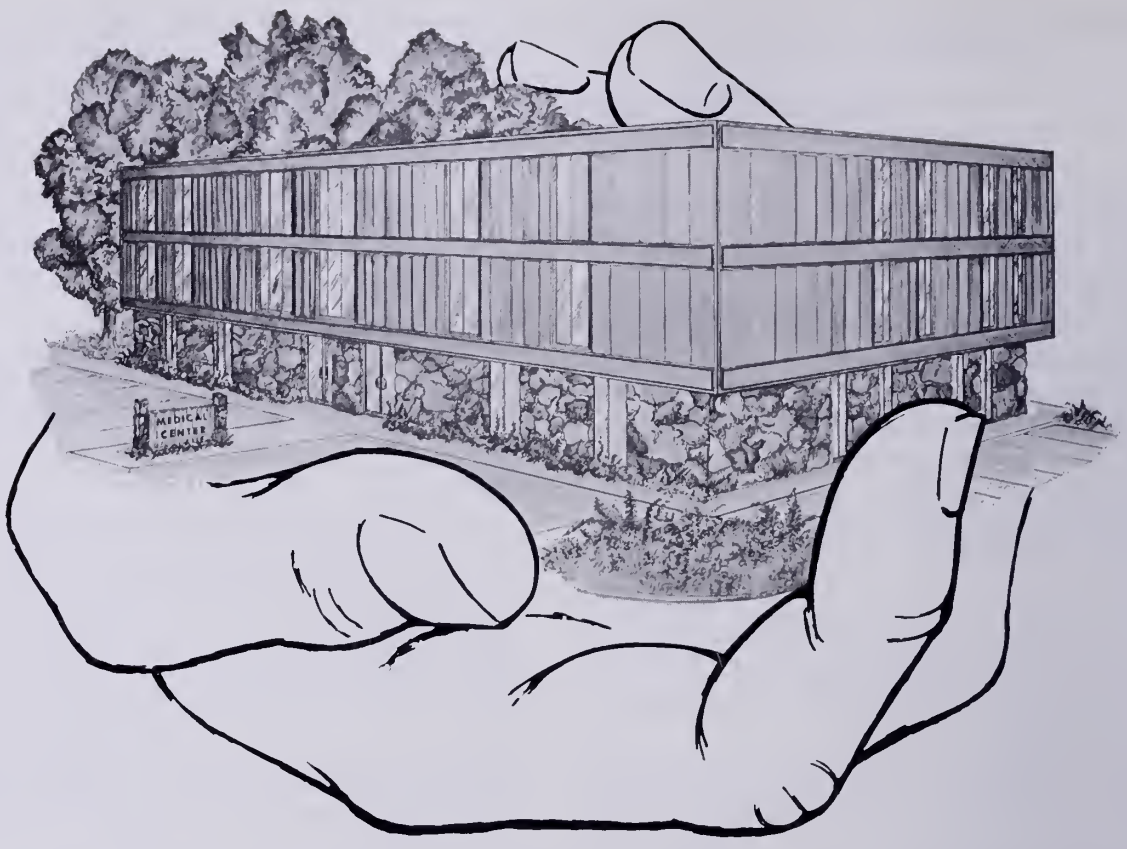
The Case Against The Clean Catch (22-824)

Donald M. Gleason, M. D.

The "clean catch" technique currently used for urine collection is not necessarily reliable. The urine bathes the vagina, the rectum, the labia and even the fingers of the patient trying to spread the labia. Unless the urine collection is supervised, the physician has no way of knowing how reliable the specimen is.

This film is a photographic study of female voiding demonstrating the pitfalls of "clean catch" technique.

16 mm., sound, color, 9 minutes. (1971)



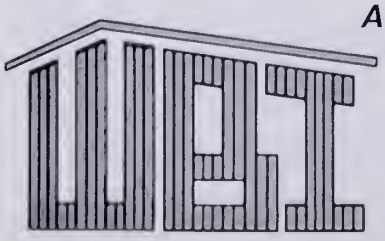
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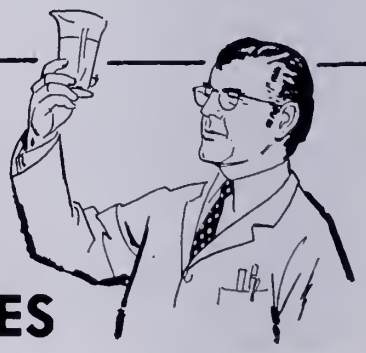
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tic patient with severe
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escription she gives of her
elings, part of the problem
ay sound like depression.
his is because her problem,
though primarily one of ex-
ssive anxiety, is often accom-
nied by depressive symptom-
ology. Valium (diazepam)
n provide relief for both—as
e excessive anxiety is re-
ved, the depressive symp-
ms associated with it are also
ten relieved.

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ges in using Valium for the
anagement of psychoneu-
tic anxiety with secondary
pressive symptoms: the
ychotherapeutic effect of
lium is pronounced and
pid. This means that im-
ovement is usually apparent
in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

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anxiety states
with associated
depressive symptoms

urveillance because of their predisposi-
on to habituation and dependence. In
egnancy, lactation or women of child-
earing age, weigh potential benefit
gainst possible hazard.

ecautions: If combined with other psy-
otropics or anticonvulsants, consider
refully pharmacology of agents em-
oyed; drugs such as phenothiazines,
rcotics, barbiturates, MAO inhibitors
d other antidepressants may potentiate
action. Usual precautions indicated in
tients severely depressed, or with latent
pression, or with suicidal tendencies.
Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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Delegate—W. E. White, M. D. ..... Anniston
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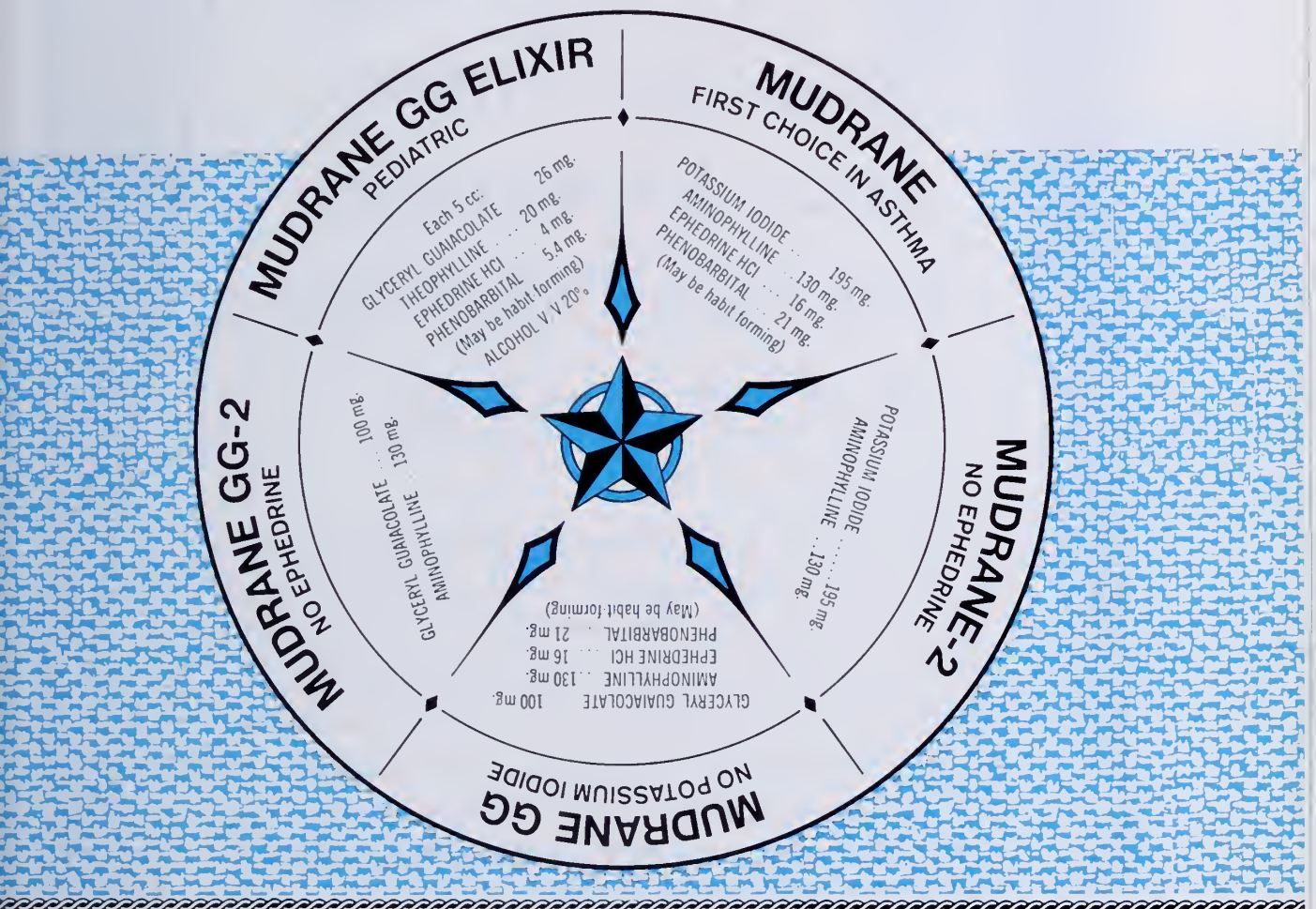
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The MUDRANES

Discreet formulations of four well regarded drugs for the relief of bronchial distress—Potassium Iodide, Glyceryl Guaiacolate, Aminophylline, Ephedrine with Phenobarbital (to lessen cardiac stimulation).



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CONTRAINDICATIONS: Aminophylline/Theophylline is contraindicated in the presence of severe cardiac arrhythmias and patients with massive myocardial damage. Ephedrine, in presence of severe heart disease, extreme hypertension, and in hyperthyroidism. Phenobarbital, in porphyria and in patients with known phenobarbital sensitivity. Potassium Iodide, in pregnancy (to protect the fetus against possible iodine-induced depression of thyroid activity), in tuberculosis (produces gumma dissolution), and in acne; also in the presence of known iodide sensitivity. PRECAUTIONS: Aminophylline/Theophylline should be avoided in patients with massive myocardial damage and/or severe cardiac arrhythmias. In children, overdose may cause vomiting, cardiac arrhythmias, and severe agitation. Ephedrine should be used with caution in the presence of severe cardiac disease, particularly arrhythmias and angina pectoris; avoid in hyperthyroidism and severe hypertension. Phenobarbital may be habit-forming. Avoid overdosage. Potassium Iodide: Discontinue in the presence of skin rash, swelling of the eyelids and severe frontal headache. Long use may cause goiter. ADVERSE REACTIONS: Aminophylline/Theophylline may cause nausea, cardiac arrhythmias, and aggravate severe myocardial disease. It may cause headaches and tachycardia. Vomiting and dizziness are not uncommon. Ephedrine: In patients hypersensitive to CNS stimulation, ephedrine may cause nervousness, tachycardia, extrasystole and ventricular arrhythmias. May cause urinary retention, especially in the presence of partial prostatic obstruction. Psychoneurosis may be aggravated. Pre-existing anginal pain will be aggravated. Phenobarbital may produce severe skin rash. Avoid overdosage. May be habit-forming. Potassium Iodide may cause nausea. Over very long period of use, iodides cause goiter. Discontinue if patient develops skin rash, eye irritation, eyelid swelling, or severe frontal headache.

HOW SUPPLIED: Mudrane and Mudrane GG available in bottles of 100 and 1000 tablets; Mudrane-2 and Mudrane GG-2 in 100s; Elixir in pints and half-gallons.

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THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA · 1873 ·

PRESIDENT'S PAGE

J. GARBER GALBRAITH, M.D., PRESIDENT



The response from the Association's membership to the Legislative Department's request for volunteers to serve as the "Physician For The Day" has been extremely satisfying. The "Physician For The Day" program has been a key part of each of the State's Legislative Sessions for several years. Although, we at MASA do not attempt to utilize this program as a method of lobbying, it has certainly improved medicine's image in the minds of many legislators. Even though participation in this program requires a journey to Montgomery and a day away from the office, the benefits are such that this program should certainly be continued.

The same note of appreciation is in order for the manner in which you responded to MASA's request for volunteers to act as "Key Men" with the home town legislators. This, of course, is by far our most effective means of providing the legislators with the physician's point of view on many issues. When the legislator is within the halls of the Capitol, he is not as available for a discussion regarding pending legislation as when he is your guest for lunch or in your home.

Word has come to the Association that the Malpractice Insurance situation is steadily deteriorating throughout the country. I am sure all of you are aware of the horrible insurance premiums that are being charged physicians in states that do not have a Professional Liability Insurance Program, such as the one we are fortunate to have in Alabama.

The St. Paul Insurance Company is attempting to change its method of coverage from an "occurrence" to a "claims made" form. Basically, a very brief description of the difference between "occurrence" and "claims made" policies is that the former covers claims reported any time in the future resulting from professional services rendered while the policy was in force. The "claims made" policy covers claims or incidents reported only while the policy is in force. Which means that St. Paul is attempting to receive permission to affect here in Alabama as well as nationwide, (and by the way, they have over 48,000 physicians insured) a system that would allow St. Paul to only be responsible for claims that are made during the time that the physician is covered by the St. Paul Insurance Company. If the cause for litigation occurred prior to St. Paul accepting your premium and issuing insurance coverage, they would not be responsible for accepting your defense. In addition, if the physician drops his "claims made" coverage with St. Paul, either by retirement or a simple change in companies, he must purchase a "tail" policy, or he is not insured if a suit is filed for something that occurred even while he was paying St. Paul premiums.

The entire malpractice insurance situation in this country has become ridiculous and a need for positive legislation is not only felt at the state level, but also at the national level. The Medical Association leadership is currently wrestling with the problem of what

form of legislation would be best for Alabama.

As you all know, the 115th Annual Session of the Medical Association of the State of Alabama is scheduled for April 17, 18, and 19 at the Parliament House in Birmingham. I would like to draw your attention to two items; first, the Annual Orientation Session is not just a session for new members. It is being organized to orient physicians as to developments of particular interest to medicine during the last year. The President-Elect, Dr. E. V. Stabler, Sr., arranged a session of extreme interest and varied topics all designed to bring each and every one of us up to date on matters of importance to the practicing physician. I urge you to attend.

Furthermore, the Scientific Session, scheduled for April 18, has been prepared with the idea that the American Medical Association will have observers present to survey our continuing medical education commitment. For their survey, an in-depth program involving different aspects of Breast Cancer has been prepared. The AMA observers will be here as the final stage in MASA's attempt to become an accredited cme producing organization. As you know, we presently have the authority to accredit other cme producers, but we are now seeking accreditation as a producer ourselves.

The Education Committee and Department are very confident that we will be successful in this endeavor. Again, I would urge each of you to attend the Scientific Session, as I am certain you will find that it has appeal to the practicing physician.

If you expect perfection from people, your whole life is a series of disappointments, grumblings and complaints. If, on the contrary, you pitch your expectations low, taking folks as the inefficient creatures which they are, you are frequently surprised by having them perform better than you had hoped.

—Bruce Barton



114th Annual Session
of the

MEDICAL ASSOCIATION OF THE STATE OF ALABAMA

April 17 - 19, 1975
Parliament House
Birmingham, Alabama

Scientific Sessions • Scientific Exhibits • Reference Committee Conferences • Orientation Program • ALAPAC Luncheon • Jerome Cochran Lecture • Annual Business Session • President's Prayer Breakfast • Awards Dinner • Special Entertainment • Alumni Parties

PLAN NOW TO ATTEND

WOMAN'S AUXILIARY

EVELYN O'BRIEN, PRESIDENT



Mrs. Seale Harris Nominated For Women's Hall Of Fame

The officers of WAMASA have nominated Mrs. Seale Harris for Alabama Women's Hall of Fame. She was a true leader, an Alabama pioneer. She became an organizer at a time when it was not the usual activity for a woman. She organized women to help them achieve common goals—goals which benefited church, community, state and nation.

She was born in Union Springs, the daughter of Josephine and Joel Harron Rainer. Her father was a Confederate Captain and banker with the Merchant's Bank of Union Springs. She was a "Judson Girl," graduating from Judson College in 1887. On April 28, 1897, she married Dr. Seale Harris who was practicing in Union Springs. They lived in Mobile from 1906 to 1913, where she was the hostess for the famed Strikers' Ball three times.

Dr. and Mrs. Harris had two children who are both deceased, Josephine Harris Keegan and Dr. Seale Harris, Jr. Dr. Harris, Jr., graduated from Johns Hopkins and was on the staff of Vanderbilt. He died in the service of his country in Australia on December 22, 1943. A daughter of Josephine Harris Keegan lives in Birmingham, Mrs. John Ballenger.

In 1913, the Harris' moved to Birmingham. Dr. Harris achieved medical fame, particularly in the treatment of diabetes at a time when insulin was very new. At first, he had a hospital in his home and Mrs. Harris was the manager. He later built the Seale Harris Clinic and the Gorgas Hotel Hospital, both with a great deal of help from Mrs. Harris.

The Woman's Auxiliary is nominating her particularly for her great efforts and success in organizing in the medical field. The following are her achievements:

1. Organized the Woman's Auxiliary to the Jefferson County Medical Society and served as President, 1923-1924.
2. Organized the Woman's Auxiliary to the Medical Association of the State of Alabama and served as President, 1923-1929.
3. She was one of 23 doctors' wives who met in St. Louis to found the Woman's Auxiliary to the American Medical Association and she was elected Vice-President. The next year, 1923, she was elected the second President of the national auxiliary. She also wrote the Constitution and By-Laws of the national auxiliary.
4. She was the organizer and first chairman of the Woman's Auxiliary to the Southern Medical Association at the organizational meeting in Washington, D. C., in 1923, and wrote the Constitution and By-Laws for this Auxiliary. She was made an Honorary President at the annual meeting in 1939.

This great lady was honored as a leader of women and as "Founder" at the Golden Anniversary Meetings of the Alabama

(Continued on Page 468)

PRESIDENT—Mrs. Donald J. O'Brien/PRESIDENT-ELECT—Mrs. William Hughes/FIRST VICE-PRESIDENT—Mrs. J. E. Dunn, Jr./NORTHWEST DISTRICT VICE-PRESIDENT—Mrs. Charles Howell/NORTHEAST DISTRICT VICE-PRESIDENT—Mrs. Roland Murphree/SOUTHWEST DISTRICT VICE-PRESIDENT—Mrs. Charles Weaver/SOUTHEAST DISTRICT VICE-PRESIDENT—Mrs. Robert Foy/WAMASA EDITOR—Mrs. William L. Smith.

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Precautions: As with other thyroid preparations, an overdosage of SYNTHROID (sodium levothyroxine) may cause diarrhea or cramps, nervousness, tremors, tachycardia, vomiting and continued weight loss. These effects may begin after four or five days or may not become apparent for one to three weeks. Patients receiving the drug should be observed closely for signs of thyrotoxicosis. If indications of overdosage appear, discontinue medication for 2-6 days, then resume at a lower dosage level. In patients with diabetes mellitus, careful observations should be made for changes in insulin or other antidiabetic drug dosage requirements. If hypothyroidism is accompanied by adrenal insufficiency, such as Addison's Disease (chronic adrenocortical insufficiency), Simmonds's Disease (panhypopituitarism) or Cushing's syndrome (hyperadrenalism), these dysfunctions must be corrected prior to and during SYNTHROID (sodium levothyroxine) administration. The drug should be administered with caution to pati with cardiovascular disease; developmer chest pains or other aggravations of cardic cular disease requires a reduction in dosage

Contraindications: Thyrotoxicosis, acute myo dial infarction. **Side effects:** The effects of S THROID (sodium levothyroxine) therapy are in being manifested. Side effects, when the occur, are secondary to increased rates of metabolism; sweating, heart palpitations or without pain, leg cramps, and weight Diarrhea, vomiting, and nervousness have been observed. Myxedematous patients heart disease have died from abrupt incre in dosage of thyroid drugs. Careful observ of the patient during the beginning of any roid therapy will alert the physician to any toward effects.



It has been shown that *Synthroid* (T_4) converts to T_3 at the cellular level to supply metabolic needs. [1, 2]

1 *Synthroid* is T_4.

2 Because T_4 converts to T_3 at the cellular level, it provides full thyroid replacement at maintenance doses.[1, 2]

3 T_4 hormone content is controlled by chemical assay.

4 *Synthroid* is assayed chemically; no biologic test is necessary to measure potency.

5 *Synthroid* provides predictable results when used with current thyroid function tests.

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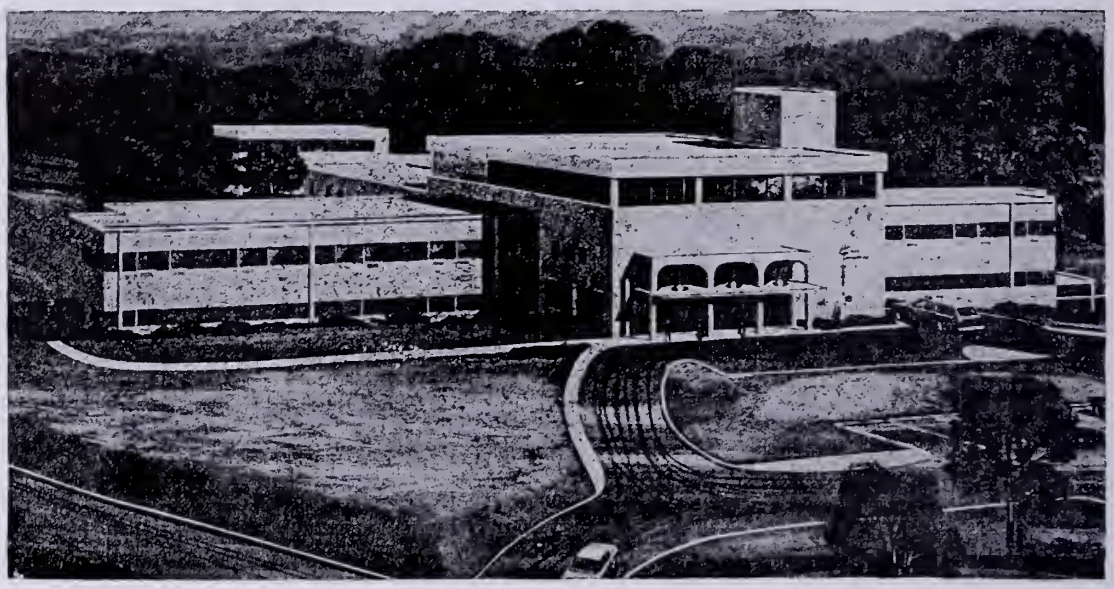
n most cases with side effects, a reduction of sage followed by a more gradual adjustment ward will result in a more accurate indication he patient's dosage requirements without the earance of side effects.

sage and Administration: The activity of 0.1 mg. SYNTHROID (sodium levothyroxine) BLET is equivalent to approximately one grain roid, U.S.P. Administer SYNTHROID tablets a single daily dose. In hypothyroidism with- myxedema, the usual initial adult dose is mg. daily, and may be increased by 0.1 mg. ry 30 days until proper metabolic balance is ained. Clinical evaluation should be made nthly and PBI measurements about every 90 's. Final maintenance dosage will usually ge from 0.2-0.4 mg. daily. In adult myxedema, ting dose should be 0.025 mg. daily. The dose may be increased to 0.05 mg. after two weeks and to 0.1 mg. at the end of a second two weeks. The daily dose may be further increased at two-month intervals by 0.1 mg. until the optimum maintenance dose is reached (0.1-1.0 mg. daily).

Supplied: Tablets: 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2 mg., 0.3 mg., 0.5 mg., scored and color-coded, in bottles of 100, 500, and 1000. Injection: 500 mcg. lyophilized active ingredient and 10 mg. of Mannitol, U.S.P., in 10 ml. single-dose vial, with 5 ml. vial of Sodium Chloride Injection, U.S.P., as a diluent. SYNTHROID (sodium levothyroxine) **for Injection** may be administered intravenously utilizing 200-400 mcg. of a solution containing 100 mcg. per ml. If significant improvement is not shown the following day, a repeat injection of 100-200 mcg. may be given.

1. Braverman, L. E., Ingbar, S. H., and Sterling, K.: Conversion of Thyroxine (T_4) to Triiodothyronine (T_3) in Athyreotic Human Subjects, J. Clin. Invest. 49:855-64, 1970.
2. Surks, M. I., Schadlow, A. R., and Oppenheimer, J. H.: A New Radioimmunoassay for Plasma L-Triiodothyronine: Measurements in Thyroid Disease and in Patients Maintained on Hormonal Replacement. J. Clin. Invest. *51*:3104-13, 1972.

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Editorial
COMMENT

Guest Editorial

Family Practice Residents Participate In Rural Medical Rotation Program

F. Douglas Scutchfield, M.D.
Professor and Chairman
Division of Community and Family Medicine
College of Community Health Sciences
University, Alabama

The University of Alabama's College of Community Health Sciences has a number of charge admissions. The majority of these charges reflect the necessity for providing primary care manpower to rural areas of Alabama. In order to serve that charge adequately, each Family Practice Resident at the University of Alabama's College of Community Health Sciences is expected to complete a two-month's rotation in community medicine. This rotation will ordinarily come sometime during the residents' second year of residency. During this rotation, he will be in a community remote to his home base of Tuscaloosa and he will be working with a board-certified or board-eligible family physician preceptor.

During this experience, the resident is expected to undertake a number of activities, including patient care services in the preceptor's setting. He is also to become familiar with mechanisms of identifying broad community health problems and to become aware of the health agencies and resources in the community which are available to assist with patient care problems. While the primary purpose of this rotation is educational, there unquestionably will be a spin-off of this activity in terms of the resident's possible practice location, specifically, after the resident has had the opportunity to see the advantages of rural practice and understand the opportunities that are available in some of the small rural communities of Alabama.

We anticipate that there will be an increased percentage of those residents who will locate in the rural areas. Studies performed at a variety of sites have demonstrated that residents are more likely to locate where they train during their residency than where they do their medical school experience. In addition, there is some evidence that, allowing for a rural preceptorship, this will increase the likelihood of an individual practice in that context. One additional thing occurs as a result of this extramural preceptorship. The precepting physician has the opportunity to improve his own clinical skills. The residents are coming from a relatively progressive medical environment, are inquisitive, bright individuals and are likely to encourage the precepting physician to actively pursue his own education.

The University of Alabama is, of course, limited in the number of sites that can be utilized for extramural rotation because of the number of residents that are currently in the program. However, there has already

been one rotation with the McNease Clinic in Fayette and one resident has just begun a two-month rotation in Centreville. Preliminary explorations have also been going with a number of other potential sites for residency rotations in family medicine, including Selma, Eutaw, Franklin County and Carrollton, to name just a few.

It has been because of the active support of physicians within the Medical Association of the State of Alabama and the Alabama Academy of Family Practice, that such activities have been established, and this would seem an appropriate vehicle to express the appreciation of the University of Alabama's College of Community Health Sciences for the continued support of the medical community.

(Continued from Page 461)

Women's Medical Auxiliary in Mobile, April, 1973, the Woman's Auxiliary to the American Medical Association in New York City, June, 1972 and at the Southern Medical Association in Atlanta, November, 1974.

We are really planning to have a "big" convention this year in Birmingham, April 17 and 18. Our convention chairmen, Mrs. James Johnson and Mrs. Chandler Smith, have been working for months to make it worth the attendance of the ladies of the Auxiliary. While the men are meeting at the Parliament House, we will be meeting at the Kahler Plaza. The Birmingham Festival of Arts will be in full swing at the same time and we have coordinated some of the activities with our schedule. We will be guests at the Festival of Arts luncheon, Thursday, April 17, which will feature designer fashions. The folklore of Brazil will be featured at the festival Thursday night. We plan to precede this with a buffet dinner with the men. Also, our fabulous national president, Mrs. Betty Liljestrand, is honoring us by coming a second time and will be at all our meetings and will talk with us. We hope to see all of our members there.

A good supervisor, someone once said, is a guy who can step on your toes without messing up your shine.

PRESCRIBING INFORMATION

Antiminth (pyrantel pamoate) Oral Suspension

Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13μg/ml.) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with pre-existing liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

Dosage and Administration. *Children and Adults:* Antiminth Oral Suspension (50 mg. of pyrantel base/ml.) should be administered in a single dose of 11 mg. of pyrantel base per kg. of body weight (or 5 mg./lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 cc. of Antiminth per 10 lb. of body weight. (One teaspoonful = 5 cc.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

How Supplied. Antiminth is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg. pyrantel base per ml., supplied in 60 cc. bottles and Unitcups™ of 5 cc. in packages of 12.

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The National Health Service In Great Britain— Revolt In The Ranks

Duncan R. Walker, M. B., F. R. C. S.
Department of Surgery
UAB Medical Center
Birmingham, Alabama

K. Michael Pagliero, M. B., B. S., F. R. C. S.
Department of Surgery
UAB Medical Center
Birmingham, Alabama

Part II

Doctors At Work In The Service

The Hospital Doctor

Junior

The Health Service has had a marked influence on postgraduate education. Almost every hospital has its own postgraduate centre containing a lecture theatre, library and other facilities. These centres were financed largely by grants from the regional boards, foundations, local magnates and from the pharmaceutical industry. A member of the consultant staff is appointed as clinical tutor and is responsible for the postgraduate training program. This is directed in two ways, towards continuing education for local general practitioners and consultants and also advanced training for junior staff. There is always the major problem in all postgraduate education, the conflict between training and service. All training posts are service posts and the junior demands a sound balance between training and service, for adequate free time for study and leisure, and for a proper salary structure.

Few long term educational programmes exist, advancement being achieved by application and selection every six months to two years so that a sense of insecurity exists throughout the training period. There are far too many juniors in training in relation to the number of senior posts and expected vacancies. This results in healthy competition, but many of the individuals "weeded out" would have been served better if their elimination had occurred earlier in training. The supply and demand of promotional opportunities has resulted in a leveling out of the average age of appointment to a specialist position of about 36-37 years of age, some five or six years later than necessary (bearing in mind that the average age of graduation in the United Kingdom is 23-25). Such a state of affairs results in an inevitable overseas "brain drain".

Senior Doctors

As previously stated, there are two groups of hospital consultants. Those who work full time within the N. H. S. (45 per cent), and those who work part-time in the N. H. S. and the rest of the time in private practice.

The Issue of Pay-Beds

At the present time, tempers among the consultants are short. Mrs. Barbara Castle, Secretary for the Social Services, reiterated recently in Parliament that the Labor Government was irretrievably committed to phasing out pay-beds in N. H. S. hospitals. There are some 4,500 of these beds out of 430,000 beds in 2,300 N. H. S. hospitals. This, plus the earlier proposals aimed at attracting more doctors into a full-time N. H. S. commitment, cause doctors grave concern. Many believe that the real objective is a full time salaried state medical service. Mrs. Castle has denied flatly that the Labor Party has any intention of phasing out the cherished freedom of doctors to practice private medi-

cine while working for the N. H. S. However, the medical profession regards all of Mrs. Castle's pronouncements with deep suspicion and even more so since she was forced to admit that it was pressures from militant health service unions which forced the Government to phase out pay-beds in N. H. S. hospitals. Early last year, there had been strong feeling, and indeed strike action by nurses and other ancillary staff, over the pay-bed issue.

Doctors argue that private practice benefits the N. H. S. as much as it does the doctors and that time and individual attention given to private patients raises standards by providing an incentive and challenge which cannot be found within the N. H. S.

To most doctors, the pay-beds issue has become more one of principle than anything of practical consequence. Strong reaction was only to be expected when it was coupled with a long delay by Lord Halsbury's Pay Review Body in considering the doctors demand for an 18 per cent interim raise. Frustration among senior doctors was further fired when he stated publicly that he would feel bound by the government's "Social Contract" (a political pact between the Labor Government and the powerful trade unions by which it was hoped that if the government kept food and other essential prices stable, the unions would not press for too much money in pay claims.) This, the doctor's claim, makes a mockery of the body's independence.

To compound the conflict further, a new consultants contract has been produced by the government. This proposes that only those doctors who work full time for the N. H. S. should be entitled to Distinction Awards (these awards in the past have been distributed to doctors who have made a significant contribution in their field of work and have been made both full time and part time consultants). The profession interpreted this as yet another lure towards a full time salaried service.

Many doctors acknowledge and resent the double standards and abuses that may result from a combined national health service and private post. Queue jumping or line breaking into a private bed is notorious, but even more nauseating to many is a private consultation followed by speedier N. H. S. treatment. In addition, the fact that health resources, x-rays, bacteriology and other diagnostic facilities are tapped at less than economic rates angers the technicians who perform them and this has led to the revolt of the auxiliary staff against the pay-bed patient in the N. H. S. hospital.

Thus the scene is set for the most bitter clash over the health service since its inception. If the doctors impose sanctions, other health service workers are likely to retaliate and this will lead to disruption, internal dissent and inevitable deterioration in patient care.

The government's latest proposals on the consultants contract were that:

a) The working week will be comprised of ten 3 ½ hour sessions instead of the present eleven;

b) No provision for private part-time work;

c) A 20 per cent bonus to sign a full time contract;

d) $5,000-$18,000 per year Distinction Awards to be replaced by seniority awards available only to fulltime consultants

This was politely and firmly turned down by the consultants.

Late in December, the pot boiled over when the government reappeared with the consultants contract, which still had the 20 per cent bonus clause for inducement to sign a full time contract. The doctors maintain that this is an attempt to bribe them into a salaried full time service and to phase out private practice.

As from January 2, 1975, all hospital consultants have agreed to work-to-rule (meaning that they will work 35 ½ hours a week instead of their present average of 60 hours.) This will mean that the hospital service will

be slowly strangled; non-urgent cases will not be seen and waiting lists will grow. They will also withdraw their administration (unpaid) services and refuse to sit on advisory committees, etc.

The Future???

The 4,500 pay-beds are certain to go and there will be a rush by private insurance groups for suitable hotels in central London which could be turned into private hospitals. Already private health groups are banding together to create a network of private hospitals (throughout Britain, there are 35,000 private beds in 160 independent hospitals and in several hundred nursing homes.) Most cater for the elderly or the convalescent patient.

American Medical International is hurrying to provide 500 more private beds. It could happen that what will result from the confrontation of State and doctors is that the doctors will prevail and the very thing the Government is trying to eradicate will then blossom.

Whither America?

American Society is geared to the principle that an individual's rights should be reflected by his own efforts. The provision against the individual casualties of life is left to personal and, to a less extent, voluntary effort. However, because of the crippling cost of medical care, many Americans now welcome the fact that for a number of years the U. S. has been moving slowly towards a national health system. Within the past decade, important indicators of this have been the establishment of limited national health insurance programs: Medicare, which takes care of the elderly; Medicaid, which in partnership with the states, finances the very poor; and the Federal program for veterans of military service.

There are, however, many Americans who view "The Welfare State" in the most abhorent way, not realizing that the principle is in the Preamble of the American Constitution . . . "To promote the general welfare". Article 1 explicitly gives taxing power to Congress for this purpose. People have come to regard good health care as a right and demands for this right are all the more strident because of dissatisfaction with the health care available, particularly in the poor and remote areas.

Therefore, those who denounce the concept and practice of the welfare state play directly into the hands of America's critics by giving the impression that it is only a Communistic or Socialistic Government which is concerned with the welfare of its citizens.

In the system as it now exists, with the emphasis heavily placed on personal responsibility for medical care within a free enterprise scheme of private care, there can be but one outcome—one system of care for the wealthy and one for the poor. While the arguments against a welfare state are well founded, such an attitude is not in accordance with the great American spirit of equal opportunity. Illness and injury spans all socioeconomic groups and it does not seem unreasonable that the right of good health s h o u l d stand apart from other welfare services.

Comparing the p r e s e n t systems in the United Kingdom, 95 per cent of patients are satisfied, whereas physicians are far from content. In the United States, the reverse is true. A health service seems inevitable in the United States; this being so, physicians must learn from experiences of the United Kingdom and negotiate their terms carefully and wisely.

Summary

To many otherwise well informed Americans, socialized medicine appears as a system where hordes of poor neglected patients abjectly accept soulless treatment from a medical profession degraded and humiliated by a pitiless government department. The introduction of the N. H. S. has not altered the long and ancient tradition of highly developed e t h i c a l and professional standards of the British Medical Profession. What it has produced, however, is a state monopoly and this has resulted in conflict between the profession and the state on remuneration and terms of service.

PHYSICIAN PLACEMENT SERVICE IN ALABAMA

The Physician Placement Service of the Medical Association of the State of Alabama is designed to assist both physicians and communities. MASA members having knowledge of practice opportunities or wishing to relocate their own practices are urged to communicate with the Placement Service. For further information: write Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, 19 South Jackson Street, Montgomery, Alabama 36104, or Telephone 263-6441.

Locations Wanted

General Practice—

Age 33; University of Saskatchewan, 1965; Board eligible; seeking associate or group practice. LW-1

Age 30; University of Kansas, 1970; Board certified; seeking associate or group practice. Available July 1975. LW-1/1

Age 33; Albany University, 1972; National Board; seeking solo, associate, group or industrial practice. Available March 1975. LW-1/2

Age 27; Indiana University, 1974; seeking associate practice. Available June 1975. LW-1/3

Internal Medicine—

Age 32; Louisiana State University, 1967; Board certified; seeking associate, group or institutional practice. Available July 1975. LW-4/10

Age 31; University of Oklahoma, 1970; Board eligible; seeking group practice. Available July 1975. LW-4/11

Age 31; Downstate Medical Center, 1968; National Board, Board certified; seeking associate, group or institutional practice (interest in cardiology); Available July 1975. LW-4/13

Age 31; Medical College of Georgia, 1968; Board eligible; seeking associate practice in North Alabama or coastal area. Available July 1975. LW-4/4

Age 33; Medical College of South Carolina, 1966; Board certified; seeking group or associate. Available September 1975. LW-4/5

Age 32; University of Arkansas 1968; Board eligible; seeking associate, group or institutional practice (interest in pulmonary medicine). Available July 1975. LW-4/12

Age 29; Medical College of Georgia, 1971; National Board; Available July 1975. (internal medicine-gastroenterology) preferably South Alabama, Mobile. LW-4/16

Age 32; Ohio State University, 1968; Board certified; seeking associate or group practice (interest in gastroenterology). Available September 1975. LW-4

Obstetrics-Gynecology—

Age 32; Medical College of Georgia, 1968; Board eligible; seeking associate practice. Available July 1975. LW-5

Ophthalmology—

Age 31; Vanderbilt, 1968, National Board; Available July 1975. LW-10/2

Age 31; Vanderbilt University 1968; National Board; Available July 1975. LW-10/1

Age 29; Baylor University, 1971, seeking associate or institutional practice. Available July 1975. LW-10/4

Age 32; University of Texas, SW, 1968; National Board; seeking associate, group practice. Available July 1975. LW-10/5

Pediatrics—

Age 30; Georgetown Medical School, 1970; National Board; Board eligible; seeking associate, group, industrial practice. Available July 1975. LW-7/4

Radiology—

Age 31; University of Texas, 1969, Board eligible, seeking associate or group practice (diagnostic radiology). Available July 1975. LW-11

Age 30; University of Alabama, 1970; Board eligible; National Board; seeking associate, industrial or institutional practice. Available July 1975. LW-11/1

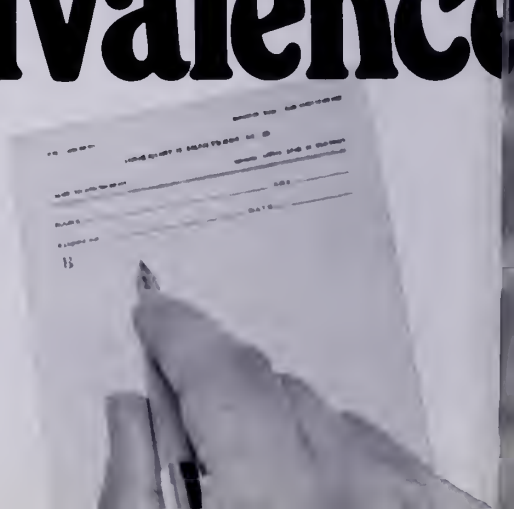
Surgery—

Age 32; New York Medical College, 1968; National Board, Board certified; seeking solo, associate or group practice. Available July 1975. LW-8/2

(Continued on Page 476)



Bioequivalence



the weight of scientific opinion:

If the pharmacist substituted a hemically equivalent drug for the ne you have specified for your atient—could you be certain of that roduct's safety and effectiveness imply because the chemical content as the same?

Definitely not, unless bio-quivalence tests and other quality ssurance checks had been conducted. he pharmaceutical industry and any scientists have maintained this osition for years, but others have uestioned it. Now the Office of echnology Assessment of the ongress of the United States has eported on the issue in its Drug ioequivalence Study.*

Here are a few definitive state-ents in the O.T.A. report:

"...the problem of bioinequiva-ncy in chemically equivalent prod-cts is a real one. Since the studies in hich lack of bioequivalence was monstrated involved marketed roducts that met current compen-ial standards, these documented in-ances constitute unequivocal vidence that neither the present andards for testing the finished roduct nor the specifications for aterials, manufacturing process, nd controls are adequate to ensure that ostensibly equivalent drug products are, in fact, equivalent in bioavailability.



"While these therapeutic failures resulting from problems of bioavailability were recognized and well documented, it is entirely possible that other therapeutic failures and/or instances of toxicity that had a similar basis have escaped attention."

The Pharmaceutical Manufacturers Association supports federal legislative amendments that would require manufacturers of duplicate prescription pharmaceutical products, subject to new drug procedures, to document:

(a) chemical equivalence; and

(b) biological equivalence, where bioavailability test methods have been validated as a reliable means of assuring clinical equivalence; or

(c) where such validation is not possible, therapeutic equivalence.

In addition, the PMA supports federal legislation that would require certification of all manufacturers of prescription products before they could start in business, annual inspections and certification thereafter, and strict adherence to FDA regulations on good manufacturing practices.

The overall quality of the United States drug supply is excellent. But only a total quality assurance program, envisaged in these and other policy positions adopted by the PMA Board of Directors in 1974, can bring about acceptable levels of performance by all prescription drug manufacturers and thereby assure the integrity of your prescription...

P·M·A

Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D.C. 20005

*Copies of the complete report on Drug Bioequivalence may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

protecting the integrity of your prescription

Age 34; Bowman Gray 1966; Board certified; seeking associate or group. Available August 1975. LW-8/3

Age 38; Medical College of South Carolina, 1964; Board certified; seeking group practice (thoracic and cardiovascular surgery). Available September 1975. LW-8/4

Urology—

Age 31; Case Western Reserve, 1968, Board eligible, seeking associate, group or academic position. Available May-June 1975. LW-9/5

Age 39; Cornell University, 1961; Board certified; National Board; seeking associate or group practice. LW-9/4

Physicians Wanted

General Practitioners—

Unique opportunity for Family Practice in city of 40,000 population, located in Central Alabama. Good location for outdoor activities, near larger cities. PW-1

Opportunity for General Practitioner in Central Alabama community with a trade area of 30,000 to 35,000 population. Nearest large city, 10 miles, 135,000 population. Established practice available due to recent death of physician. Financial assistance available to offset moving expenses. PW-2

Opportunity for General Practitioner in town of 3,000 population located in west Alabama in trade area of 20,000 population. There is a 30-bed hospital in the town. Nearest large city is 50 miles distant, population of 150,000. The Medical Clinic Board is authorized by the town to provide office space and arrange adequate housing. Farming and industry in the community. Churches, schools and recreational activities. PW-3

Opportunity for General Practitioner in town of 2,000 population in trade area of 4,300 population located in south Alabama. Nearest hospital located 17 miles away in the nearest large city of 36,000 population. A physician was in the town until his retirement three years ago. Office space and housing readily available. Farming and textile industry. School, churches and service clubs. PW-4

Physician wanted for general practice in town of 7,000 population with trade area of 15,000 population located in central Alabama. 35-bed hospital located in town. Office space available near hospital. Nearest large city with population of 50,000 is 30 miles away. Numerous churches and schools. Lumber and textile industry. Recreational activities and civic clubs. PW-8/2

Physician wanted for general practice, group or associate, in University town of 40,000 population. Salary and partnership negotiable. PW-1/1

Associate wanted in a three physician general practice in a rural county near Mobile. Salary initially with anticipated early partnership arrangement. 30-bed county hospital adjoining the office. PW-3/3

General Practitioner wanted for associate practice with two Family Practitioners ages, mid-thirties. New 100-bed hospital, new office building being designed adjacent to hospital. Fulltime after hours E. R. Coverage. Located in North Alabama mountain lakes region. Town of over 13,000 population. Excellent school systems, public and parochial. Two liberal arts colleges and a Technical college in the county. Invitation to visit with expenses paid will be directed to those qualified. PW-5

Special Openings—

One or more **Pediatricians** and one or more **Internal Medicine** and/or **Family Practitioners** wanted in town located in northwestern section of the state. 63-bed general short term acute city-owned hospital, accredited by JCAH. The City has built a modern, new clinic building adjacent to the hospital. Office suites available rent free for first 12 months. Salary offered to physicians by the city for the first 6 months, non-refundable. PW-20

Emergency Physicians, P. A. provides physicians for several Birmingham hospitals. EPPA is a fee for service professional corporation. Join a four-man group, salary, bonus, paid vacation, medical meeting, disability, life, health and professional liability insurance, 44-hour work week. Stock ownership in the P. A. is available as a percentage of profits. PW-22

Wanted—2 Internists, 2 Ob-Gyn, 2 Pediatricians, 1 Urologist, 1 Anesthesiologist. Fee for service basis, Gross guarantee 1st and 2nd year. New office space to be available next to hospital. 100-bed hospital, modern well equipped, fulltime radiologist and pathologist. Two general surgeons and 9 general practitioners now serving population base 40,000. Unemployment in area less than one percent. Excellent recreation area. Invitations to visit with expenses paid will be directed to those qualified. PW-12

General Surgeon and Ophthalmologist wanted for community of 22,000 population and 45,000 service area. New hospital with eight general practitioners and one Board certified radiologist. Schools for blind and deaf located in the town. Excellent schools and recreational facilities. PW-11

(Continued on Page 520)

CONTINUING MEDICAL EDUCATION

71st Annual Congress On Medical Education—Impressions

by Larry Dixon

The AMA's 71st Annual Congress on Medical Education was held recently at the Palmer House Hotel in Chicago. The Medical Educators present had the opportunity of attending their choice of many simultaneous sessions, and in accordance with the old axiom, "there was something for everyone." I am devoting this discussion to my impressions of three of those sessions.

The first, and perhaps the most important session, dealt with a change in the manner in which the continuing medical education accreditation program will be operated. The cme accreditation program was developed and has been operated by the AMA from its conception. However, and although I am at a loss to understand why, the continuing medical education of physicians is going to be turned over to a Liaison Committee on Continuing Medical Education (LCCME), which will consist of representatives from non-physician organizations.

The present system operated by the AMA is one in which the American Medical Association either surveys and accredits itself or approves applications of state medical societies requesting the right to accredit intra-state cme producers. In states that have this authority, the AMA only surveys national organizations and at present over 30 state medical associations do accredit intra-state cme producers. The AMA continues to accredit all national organizations, as well as the cme aspect of medical schools.

This program has been instrumental in the Physician's Recognition Award program as sponsored by the AMA. The "top of the line" credit for the Physician's Recognition Award can only be received by attending conferences that are sponsored by cme accredited organizations. The conference can only be Category I credit if it is continuing medical education designed for physicians.

Enter the LCCME, an organization which early in 1976 will assume the responsibilities of the nationwide accreditation program and the cme accreditation programs currently being operated under the auspices of state medical associations. Associations will become responsible not to the physician organization to which they originally applied, but to the LCCME. The LCCME contains representatives from the following organizations: AMA, AAMC, ABMS, CMSS, AHA, HEW, FSMB AHME and the public. For the benefit of the readers of this column, I should identify each of those organizations and I would, if only I knew what all the acronyms stood for.

In light of the above, I believe that MASA is "getting in under the wire." As the members of this Association know, MASA received the authority to conduct an intra-state cme accreditation program in 1974. The Annual Session scheduled for Birmingham, April 17, 18 and 19, will be surveyed by the AMA for the purpose of accrediting MASA's cme producing aspects. In other words, we first received the authority to accredit others and

now we are seeking accreditation as a producer ourself. Therefore, the accreditation aspect of MASA's cme plan should be completed by the first of 1976, when the LCCME assumes control.

Not only will we have received our accreditation as well as our authority to accredit from the AMA, but we will have completed the process prior to the renovation of the program. I, of course, have no proof and have heard nothing that even implys the LCCME will make changes in the system. The foregoing comment was based solely upon a recognition that in almost every situation when an organization or program has a change in leadership, a change in direction is surely to follow. Once again, I think we are fortunate that MASA will have completed this project prior to the LCCME's establishing its authority over the accreditation program.

At a Federation of State Medical Board's meeting, I had the opportunity to hear a review of the status of New Mexico's relicensure program. Review was delivered by R. C. Derbyshire, M. D., Secretary to the Board of Medical Examiners, Sante Fe, New Mexico. Dr. Derbyshire gave an interesting review of the state medical association's thinking in making the decision that this action should be taken. Then the State Legislature enacted the legislation requiring continuing medical education before the physician could be relicensed to practice medicine in the State of New Mexico.

Dr. Derbyshire, of course, spoke highly of the program and of the program's success. I am certain that for the physician practicing in New Mexico, the right cme program was chosen; however, for the physicians residing and practicing in Alabama, I believe the New Mexico system would be disastrous. One of the closing comments left me feeling strange because, very shortly, approximately 100 New Mexican physicians will fail to meet the relicensure requirement. Dr. Derbyshire, of course, anticipated that during the "grace" period, they would comply. (That is, those who were not complying on principle.) As for those declining to comply on principle, following a run at the courts, they will either be forced to move or to change their profession. As I prepare MASA's second Physician Recruitment Conference, I can't help but wonder how it would affect this State if we were to suddenly lose 100 physicians.

Augustus N. Tanaka, M. D., Past President, Oregon State Medical Association from Ontario, Oregon, followed Dr. Derbyshire with a review of the results of the Oregon Medical Association's educational requirement. Their requirement is similar to MASA's, in that certain educational credits are required for association membership. Dr. Tanaka spoke quite highly of Oregon's success with their cme requirement and as the first reporting period has already passed, he was quite pleased with the fact that the number of physicians failing to comply, and therefore dropping out of the association, could be counted in the high teens. Another interesting aspect, however, was that the Oregon Medical Association's membership had increased. The increase is due to the amount of publicity the requirement had received throughout the State of Oregon. Many non-Association physicians were being asked by their patients if they were Association members and were therefore required to attend continuing medical education conferences. The results of these questions were a definite increase in the Association's membership.

The continuing medical education situation in the United States is changing rapidly and it varies greatly from State to State. The Education Committee of this Association is cognizant of the importance of not changing the rules in the middle of the game. There will be no effort to stiffen requirements for membership; there will be no effort to change our standards for accreditation as long as the current Education Committee exists. The two aspects of the Master Education Plan for this Association, cme accreditation and membership requirements, were conceived and developed not as busy work, but because in the mind of the Education Committee, they both have value and will benefit the physicians and the delivery of health care in this State.



Putting out the fires of arthritic pain

Rheumatoid arthritis can sometimes spread like wildfire, with joint after joint going up inflamed: "The usual onset is manifested by spotty joint involvement but an acute onset of symmetrical polyarthritis may be noted."*

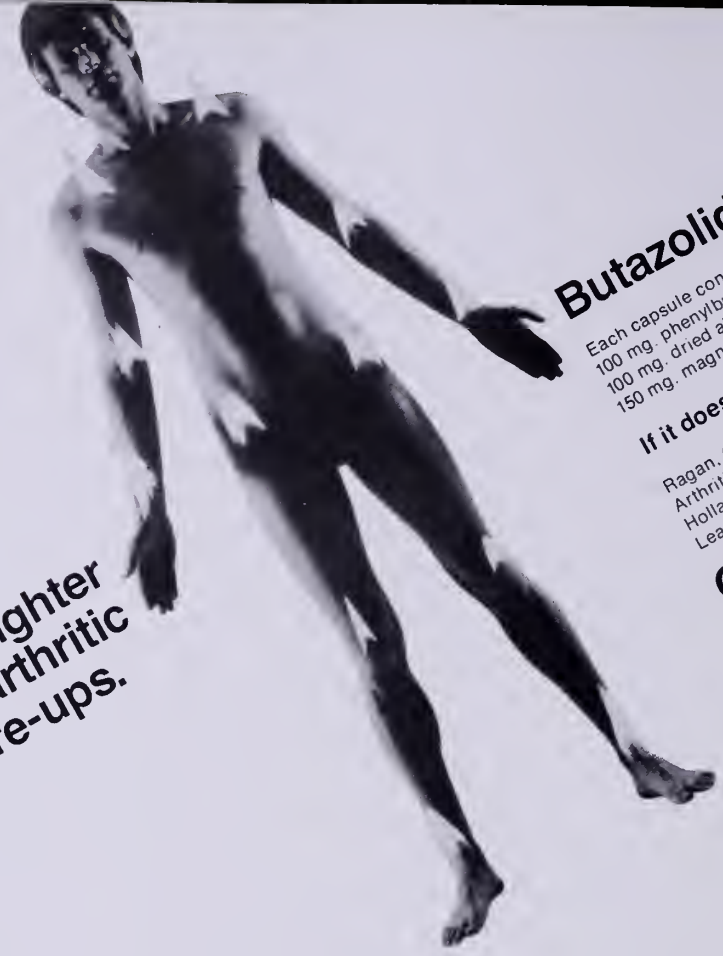
If aspirin fails, consider Butazolidin alka. Giving one capsule four times a day often provides prompt, pain-relieving, anti-inflammatory action to help restore joint mobility. The results you can get within a week can be maintained on as little as one or two capsules daily.

Serious side effects can occur. Select patients carefully (particularly the elderly) and follow them closely in line with the drug's precautions, warnings, contraindications and adverse reactions. For full details, please read the prescribing information. It's summarized on the back of this page.

Butazolidin® alka

Each capsule contains:
100 mg. phenylbutazone USP
100 mg. dried aluminum hydroxide gel USP
150 mg. magnesium trisilicate USP

If it doesn't work in a week, forget it.



Fire fighter for arthritic flare-ups.

Butazolidin® alka

Each capsule contains:
100 mg. phenylbutazone USP
100 mg. dried aluminum hydroxide gel USP
150 mg. magnesium trisilicate USP

If it doesn't work in a week, forget it.

Ragan, C.: The Clinical Picture of Rheumatoid Arthritis, in Arthritis, ed. 8, edited by J. L. Hollander and D. J. McCarty, Jr., Philadelphia, Lea & Febiger, 1972, chap. 21, p. 335.

Geigy

Important Note: This drug is not a simple analgesic. Do not administer casually. Carefully evaluate patients before starting treatment and keep them under close supervision. Obtain a detailed history, and complete physical and laboratory examination (complete hemogram, urinalysis, etc.) before prescribing and at frequent intervals thereafter. Carefully select patients, avoiding those responsive to routine measures, contraindicated patients or those who cannot be observed frequently. Warn patients not to exceed recommended dosage. Short-term relief of severe symptoms with the smallest possible dosage is the goal of therapy. Dosage should be taken with meals or a full glass of milk. Substitute alka capsules for tablets if dyspeptic symptoms occur. Patients should discontinue the drug and report immediately any sign of fever, sore throat, oral lesions (symptoms of blood dyscrasia); dyspepsia, epigastric pain, symptoms of anemia, black or tarry stools or other evidence of intestinal ulceration or hemorrhage, skin reactions, significant weight gain or edema. A one-week trial period is adequate. Discontinue in the absence of a favorable response. Restrict treatment periods to one week in patients over sixty

Indications. Rheumatoid arthritis, osteoarthritis, bursitis, acute gouty arthritis and rheumatoid spondylitis

Contraindications: Children 14 years or less; senile patients; history or symptoms of G.I. inflammation or ulceration including severe, recurrent or persistent dyspepsia; history or presence of drug allergy; blood dyscrasias; renal, hepatic or cardiac dysfunction; hypertension; thyroid disease; systemic edema; stomatitis and salivary gland enlargement due to the drug; polymyalgia rheumatica and temporal arteritis; patients receiving other potent chemotherapeutic agents; or long-term anticoagulant therapy

Warnings. Age, weight, dosage, duration of therapy, existance of concomitant diseases, and concurrent potent chemotherapy affect incidence of toxic reactions. Carefully instruct and observe the individual patient especially the aging (forty years and over) who have increased susceptibility to the toxicity of the drug. Use lowest effective dosage. Weigh initially unpredictable benefits against potential risk of severe, even fatal, reactions. The disease condition itself is unaltered by the drug. Use with caution in first trimester of pregnancy and in nursing mothers. Drug may appear in cord blood and breast milk. Serious, even fatal, blood dyscrasias, including aplastic anemia, may occur suddenly despite regular hemograms, and may become manifest days or weeks after cessation of drug. Any significant change in total white count, relative decrease in granulocytes, appearance of immature forms, or fall in hematocrit should signal immediate cessation of therapy and complete hematologic investigation. Unexplained bleeding involving CNS, adrenals, and G.I. tract has occurred. The drug may potentiate action of insulin, sulfonylurea, and sulfonamide-type agents. Carefully observe patients taking these agents. Nontoxic and toxic goiters and myxedema have been reported (the drug reduces iodine uptake by the thyroid). Blurred vision can be a significant toxic symptom worthy of a complete ophthalmological examination. Swelling of ankles or face in patients under sixty may be prevented by reducing dosage. If edema occurs in patients over sixty, discontinue drug.

Precautions: The following should be accomplished at regular intervals. Caretul detailed history for disease being treated and detection of earliest signs of adverse reactions; complete physical examination including check of patient's weight, complete weekly (especially for the aging) or an every two week blood check, pertinent laboratory studies. Caution patients about participating in activity requiring alertness and coordination, as driving a car, etc. Cases of leukemia have been reported in patients with a history of short- and long-term therapy. The majority of these patients were over forty. Remember that arthritic-type pains can be the presenting symptom of leukemia.

Adverse Reactions. This is a potent drug, its misuse can lead to serious results. Review detailed information before beginning therapy. Ulcerative esophagitis, acute and reactivated gastric and duodenal ulcer with perforation and hemorrhage, ulceration and perforation of large bowel, occult G.I. bleeding with anemia, gastritis, epigastric pain, hematemesis, dyspepsia, nausea, vomiting and diarrhea, abdominal distention, agranulocytosis, aplastic anemia, hemolytic anemia, anemia due to blood loss including occult G.I. bleeding, thrombocytopenia, pancytopenia, leukemia, leukopenia, bone marrow depression, sodium and chloride retention, water retention and edema, plasma dilution, respiratory alkalosis, metabolic acidosis, fatal and nonfatal hepatitis (cholestasis may or may not be prominent), petechiae, purpura without thrombocytopenia, toxic pruritus, erythema nodosum, erythema multiforme, Stevens-Johnson syndrome, Lyell's syndrome (toxic necrotizing epidermolysis), exfoliative dermatitis, serum sickness, hypersensitivity angiitis (polyarteritis), anaphylactic shock, urticaria, arthralgia, fever, rashes (all allergic reactions require prompt and permanent withdrawal of the drug), proteinuria, hematuria, oliguria, anuria, renal failure with azotemia, glomerulonephritis, acute tubular necrosis, nephrotic syndrome, bilateral renal cortical necrosis, renal stones, ureteral obstruction with uric acid crystals due to uricosuric action of drug, impaired renal function, cardiac decompensation, hypertension, pericarditis, diffuse interstitial myocarditis with muscle necrosis, perivascular granulomata, aggravation of temporal arteritis in patients with polymyalgia rheumatica, optic neuritis, blurred vision, retinal hemorrhage, toxic amblyopia, retinal detachment, hearing loss, hyperglycemia, thyroid hyperplasia, toxic goiter, association of hyperthyroidism and hypothyroidism (causal relationship not established), agitation, confusional states, lethargy, CNS reactions associated with overdosage, including convulsions, euphoria, psychosis, depression, headaches, hallucinations, giddiness, vertigo, coma, hyperventilation, insomnia, ulcerative stomatitis, salivary gland enlargement

(B)98- t46-070-J (10/71)

For complete details, including dosage, please see full prescribing information.

GEIGY Pharmaceuticals
Division of CIBA-GEIGY Corporation
Ardsley, New York 10502

BU t0259

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Breast Cancer Management

Henry L. Laws, M. D., Birmingham
John T. Carpenter, Jr., M. D., Birmingham
William A. Maddox, M. D., Birmingham

Part II

Introduction

The physicians and surgeons of Alabama plan to conduct a study of breast cancer treatment. The rationale for this, the Alabama Breast Cancer Project (ABC Project), was presented in the December, 1974 issue of the JOURNAL of the Medical Association of the State of Alabama; this second article provides an overview of the ABC Project plans and outlines the details of the proposed protocols for the surgical and chemotherapy clinical trials. June, 1974 to May, 1975 is a planning year, and it is anticipated the project will begin approximately June, 1975. In cooperation with the physicians of the State, the University of Alabama in Birmingham, Comprehensive Cancer Center, will be coordinating this program.

A comprehensive plan for diagnosis and treatment of all stages of breast cancer will be developed by the ABC Project staff with the assistance of the Advisory Committee. These guidelines will be utilized at the University of Alabama in Birmingham, School of Medicine. They will be made available to the physicians and hospitals of the State and recommended for adoption as they desire or are equipped to participate.

Additionally, surgeons will be encouraged to cooperate in two clinical trials. At the outset, a prospective, randomized trial for treatment of primary operable breast cancer in the female will be undertaken: 1) to compare standard radical mastectomy with modified radical mastectomy (preservation and non-division of both pectoral muscles), and 2) to compare melphalan (also known as Alkeran®, L-PAM, and L-phenylalanine mustard) with combination chemotherapy (cyclophosphamide, methotrexate, 5-fluorouracil —CMF) for patients with histologically positive axillary lymph nodes, but no distant metastasis. Other cases which are not considered suitable for randomization will be managed and followed to ascertain the impact of the disease in Alabama, and to recognize other aspects worthy of therapeutic trials. This is the first cooperative prospective study effort by community surgeons on a statewide basis of which we are aware. Success in this effort should increase our knowledge about breast cancer and, in addition, help in dissemination and utilization of already accepted principles.

Rationale

Thirty thousand individuals succumb to breast cancer yearly in the United States. An estimated 1,100 new cases occur annually in Alabama, with an ultimate mortality from the disease of over 65 per cent.[11]

Radical mastectomy was accepted as the treatment for operable cases from 1894, until McWhirter's report in 1949.[12] Since 1949, more and more variety in treatment has been

tried. Review of available data and known pathological progression of the disease negates, we believe, utilization of an operation of less magnitude than modified radical mastectomy.[11] Limited data suggests that modified radical mastectomy may be equivalent to radical mastectomy with less morbidity and cosmetic deformity.[8,9]

Further assessment reveals post-operative radiation therapy in node positive cases affords no improvement in survival; however, radiation therapy may be administered if and when local recurrence is evident.[1, 4, 6, 13]

A number of drugs have been found to palliate and prolong the course of disseminated mammary carcinoma in the majority of patients. Long-term control of certain cancers has been achieved with combination chemotherapy such as with Hodgkin's disease. Thus far, chemotherapy has not afforded permanent cure in any patients with breast cancer. Cooper reported 90 per cent objective regression using a 5-drug regimen.[3] Other investigators have recorded encouraging results using four or even three drugs. A 3-drug regimen may be safer and simpler to administer. The ideal time for administration of chemotherapy appears to be when the tumor mass is smallest, i.e. immediately after resectional surgery.[2] Adjuvant chemotherapy for node-positive breast cancer patients appears to achieve improved survival and possibly cure. The National Surgical Adjuvant Breast Project has recently reported a beneficial response to melphalan in a small number of premenopausal, node-positive patients followed for two years.[5] Comparison of a combination drug regimen with melphalan seems appropriate to detect which regimen is superior and safer.

One should understand that the long-term effects of chemotherapy are not known. Significant immunosuppression regularly results from cytotoxic therapy; an increased susceptibility to opportunistic infections is associated with immunosuppression. In addition, an increased incidence of second primary malignancies occurs when such drugs are given for other conditions (i.e. renal transplant patients). This risk will have to be weighed against the probable benefits of adjuvant therapy—increased survival and delayed clinical relapse of the primary illness.

Since the anticipated cure of primary operable breast carcinoma is about 50 per cent of patients who undergo either radical mastectomy or modified radical mastectomy, sizable cohorts will be necessary for significant data to reveal either equality or superiority of radical mastectomy, or of modified radical mastectomy in absolute survival. Differences in morbidity may become evident after fewer patients have been operated upon.

Long-term survival in node-positive cases will be decidedly less, perhaps 35 per cent compared to 75 per cent in node-negative cases. Significant data of the impact of chemotherapy may be more easily obtainable since any influence in survival will be more apparent.

Plan

Cooperating surgeons will agree to include all patients with breast cancer. They may elect: (1) to randomize the surgical procedure in appropriate patients, (2) to randomize chemotherapeutic regimens in axillary node positive patients after an appropriate surgical procedure or (3) to do both. The operating surgeon will determine the extent of the disease and the acceptability of the patient for treatment and randomization. Questions regarding management may be settled by calling via Mist Line and asking for the Alabama Breast Cancer Project.

After surgery, the following will be forwarded to Alabama Breast Cancer Project, University of Alabama in Birmingham, Box 193, University Station, Birmingham, Alabama 35294, in the envelopes furnished:

Copy of operative note

Pathology report

Pathology Slides

Case Registration Form

Informed Consent Form(s)

Frozen tissue for determination of estrogen binding capacity (optional at no cost)

The Follow-Up Form will be forwarded from the ABC Project office to the surgeon to be completed at 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 42, 48, 54, 60, 72 months, etc. and returned in the envelope furnished. In the event of recurrence, subsequent treatment will be at the discretion of the individual surgeon, though advisory aid will be available if desired.

Since it is anticipated that there will be a small, but definite percentage of cases where difference in pathological interpretation will occur, the pathologist at the ABC Project office will serve as the pathology referee. After the initial surgery, the pathology slides and a copy of the pathology report will be forwarded to the ABC Project office. Prior to tabulation of the final results of the clinical trials, another independent pathological interpretation of all specimens will be obtained.

Preoperative Work-up

Preoperative work-up should include a careful history and physical examination, chest film, CBC, alkaline phosphatase, calcium, phosphorus, SGOT, bilirubin, serum creatinine and X-ray of any area suspicious for bony involvement as suggested by pain.

Optional parameters which may be done at the local hospital would include mammography of the contralateral breast and bone scintiscan for metastatic disease.

Method of Randomization

At the surgeon's preoperative evaluation, the Case Registration Form will be completed and the patient will be placed in one of five categories:

I. **Patient older than 70 years.**

II. **Inoperable:** Haagensen's Clinical Criteria of Inoperability[7]

1. Extensive edema of the skin over the breast
2. Satellite nodules in the skin over the breast
3. Intercostal or parasternal tumor nodules
4. Edema of the arm
5. Proved supraclavicular metastases
6. Inflammatory carcinoma
7. Distant metastases
8. Any two, or more, of the following signs of locally advanced carcinoma:
   a. Ulceration of the skin
   b. Skin edema of less than 1/3 of the breast
   c. Fixation of the tumor to the chest wall
   d. Axillary lymph nodes measuring 2.5 cm
   e. Fixation of axillary lymph nodes to the skin for the deep structures of the axilla and proved to contain metastases by biopsy.

III. **Borderline Inoperable**—any one listed above in II, 8, a-e.[7]

IV. **Very Early**
Criteria:

1. In situ lobular carcinoma
2. In situ ductal carcinoma
3. Padget's disease without palpable mass
4. Minimal cancer (lesion less than 0.5 cm. in diameter)

V. **Operable** (Ideal for randomization)

The following method will be utilized to randomize patients: The examining surgeon will complete the Case Registration Form prior to surgery. If the patient is acceptable for randomization (i.e. category V—operable), then the surgical treatment will be effected by date of birth as follows:

EVEN YEAR of Birth—
RADICAL MASTECTOMY

ODD YEAR of Birth—
MODIFIED RADICAL MASTECTOMY

Those patients with pathologically positive axillary lymph nodes with no distant metastasis will be randomized for post-operative chemotherapy as follows:

EVEN MONTH of Birth—
Melphalan (L-PAM)

ODD MONTH of Birth—
Cyclophosphamide, Methotrexate, and 5-fluorouracil (CMF)

If a question arises, the surgeon may call the Mist Line and ask for the ABC Project.

Surgical Techniques: Radical Mastectomy and Modified Radical Mastectomy

Operability assessment will be done entirely by the operating surgeon. Diagnostic biopsy may be by needle, (either Vim-Silverman or Aspiration) or excisional biopsy. Medial quadrant lesions (unless fixed to chest wall or ulcerating through skin) will be treated identically to outer quadrant lesions.

For either operation: Vertically or transversely oriented incisions may be utilized as considered appropriate for the individual case. The skin incision should be 4-5 cm. wide of the lesion in all directions and at least 2 cm. wide of the areola. Skin flaps should be developed in the plane of the superficial fascia. The dissection should be carried to the clavicle and cephalic vein superiorly, to the mid sternum medially, to the anterior latissimus border laterally and at least 4 cm. below the inframammary crease inferiorly.

The thoracodorsal nerve will usually be preserved, but may be sacrificed in either operation if deemed necessary by the surgeon.

Skin grafts may or may not be used as indicated.

The Radical Mastectomy technique should include sacrifice of both pectoral muscles and the axillary contents. Suitable methods are described by Haagensen, and by Zollinger and Cutler as well as by others.[7, 14]

The Modified Radical technique will preserve both pectoral muscles with a portion of their innervation. The technique of one of us (W. A. M.) is described in Illustrations I, II, III, IV, V, VI. Madden's description may, also, be followed.[10]

Technique of W. A. M. for Modified Radical Mastectomy

The following medical illustrations demonstrate the essential aspects of the Modified Radical Mastectomy.

Illustration I.

Draping after pathologic proof by previous needle, incisional, or excisional biopsy. If the biopsy has been made during the present procedure, then a gauze impregnated with alcohol should be sutured over the closed biopsy incision. The patient should then be reprepped and draped. Care should be taken not to spill alcohol over the field if the cautery is to be used. Note the lateral drape posterior to arm to allow motility of the wrapped arm.

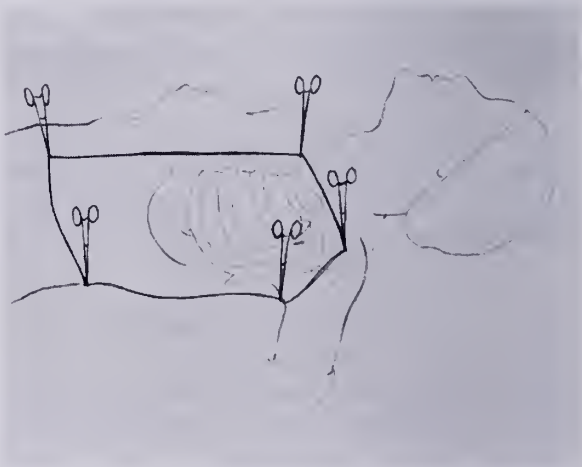


Illustration I

Illustration II.

Skin flaps are developed at the level of the superficial fascia over the entire area by sharp dissection superiorly to near the clavicle, medially to midline, inferiorly to rectus sheath, laterally to anterolateral edge of the latissimus dorsi muscle. The lateral extent of the axillary vein is exposed

at this time. Saline pads are used to protect these during the remainder of the procedure.

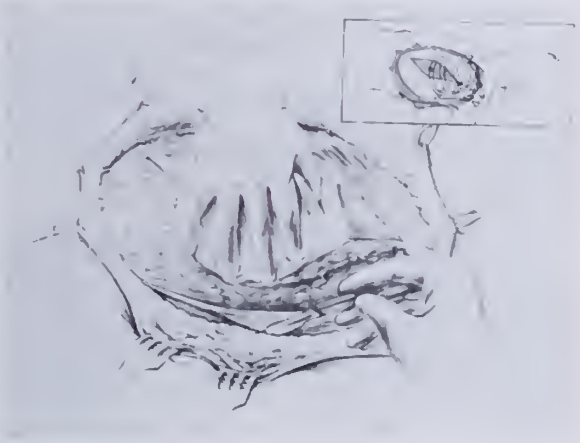


Illustration II

Illustration III.

Using scalpel, the breast is dissected off the pectoralis major muscle deep to the pectoral fascia. Portions of this muscle may be sacrificed when the overlying tumor is near the pectoral fascia. The pectoralis major muscle is then retracted medially and tissue between the two muscles is dissected laterally. The innervation to the major pectoral muscle should be preserved.



Illustration III

Both muscles are then retracted medially as they are bared to allow the axillary dissection. Elevation of the arm will relax the pectoralis major muscle and afford better exposure.

Illustration IV.

Both muscles are retracted medially and the lympho-axillary tissue is dissected off the brachial plexus, axillary artery and vein. The inset reveals identification and protection of the long thoracic nerve and the thoracodorsal nerve. If the latter appears to descend through involved nodes, it should be sacrificed.

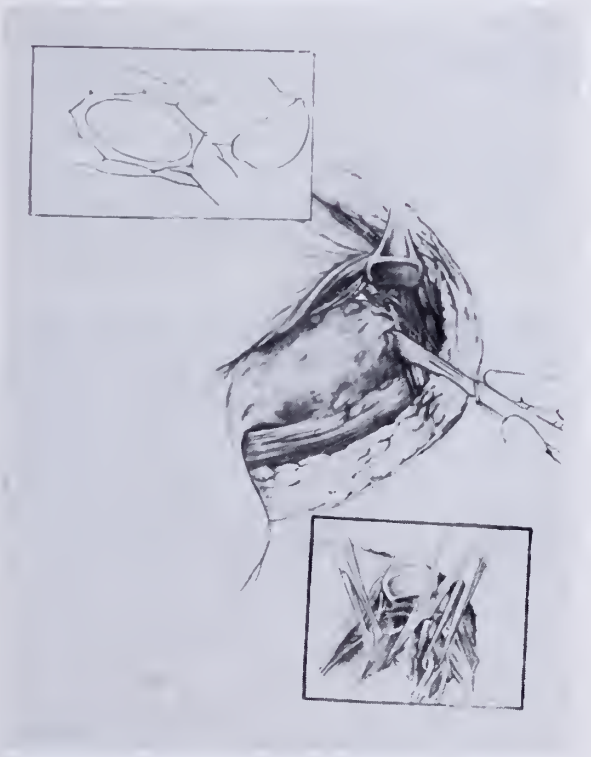


Illustration IV

Illustration V.

Deep in the axilla between the chest wall and subscapular muscle the scissors may allow easier dissection than the knife. All tissue between the latissimus dorsi and the chest wall (serratus anterior) is sacrificed. This dissection is conducted as in radical mastectomy.



Illustration V

Illustration VI.

The incision is closed with interrupted mattress sutures in the skin. Suction catheters should be left under skin flaps medially and laterally and connected to suction.

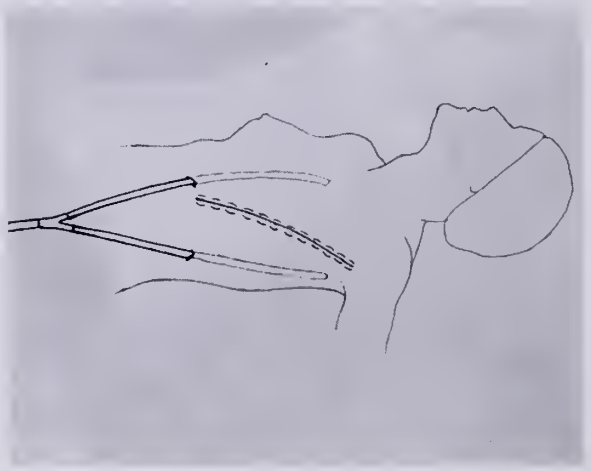


Illustration VI

Adjuvant Chemotherapy

Patients with evidence of regional spread —positive axillary nodes—but no evidence of distant metastasis will be eligible for adjuvant chemotherapy, because they constitute a high-risk group for recurrence. Chemotherapy should be started as soon as feasible, preferably 14-21 days after operation. The surgeon should call the ABC project office via the Mist Line when he learns of the patient's nodal status and transmit the patient's height and weight when he calls. This will allow the ABC project consultant to calculate the patient's dosage of medication and will allow time for an ABC project nurse to visit the physician to provide appropriate forms and to aid in orienting nurses and clerical staff in their use.

The adjuvant chemotherapy program should only be used in patients without evidence of distant metastasis. The preliminary studies will consist of a CBC and platelet count in addition to the recommended preoperative laboratory studies, which must be normal. During therapy, a CBC and platelet count should be done before each dose of medication and a chest X-ray and SMA_{12} every three months. Patients with renal insufficiency (serum creatinine 1.5 mg per cent) will be ineligible for adjuvant chemotherapy randomization, but may be treated with the melphalan regimen if the physician desires. Such patients will be analyzed separately.

Adjuvant chemotherapy will be administered to eligible patients (i.e. those with histologically positive nodes) for a period of approximately one year following operation. No data exists to suggest an optimum duration of adjuvant therapy; one year will be used since about 50 per cent of recurrences in high-risk patients occur in the first year. Patients who have limiting toxicity may need slightly longer than one year to complete their therapy.

Therapeutic agents:

Cyclophosphamide (Cytoxan)
NSC 26271

Supplied as dry crystalline hydrate in 100, 200 and 500 mg vials. Should be protected from temperature over 90 degrees F. For extended stability vials should be kept in refrigerator. Anticipated toxicity: Major toxicity is neutropenia (100 per cent) with nadir at 8-12 days

and recovery in 15-21 days. Alopecia (50 per cent) occurs after 21 days with regrowth at cessation of drug. Sterile hemorrhagic cystitis (4 per cent) may occur with sustained therapy and necessitate discontinuation of the drug.

Supplier: Mead Johnson

Methotrexate
NSC 740

Formulation: 2cc vials, 25 mg per cc. Toxicity: oral erythema, ulceration, hemorrhage, GI ulceration, chills and fever, hematologic depression, hepatic toxicity, skin reactions, alopecia, nausea and vomiting.

Supplier: Lederle

5-fluorouracil
NSC 19893

Supplied as 10cc ampules, colorless to faint yellow aqueous solution containing 50 mg/cc 5-fluorouracil buffered with NaOH. Anticipated toxicity: leukopenia, thrombocytopenia, stomatitis, diarrhea, nausea, alopecia, dermatitis.

Supplier: Roche

Melphalan (Alkeran®, L-PAM, L-phenylalanine mustard).
NSC 8806

Formulation: 2 mg tablets

Toxicity: Leukopenia and thrombocytopenia occur maximally at 3 to 5 weeks with recovery at 4 to 8 weeks. Nausea and vomiting can occur with larger doses.

Supplier: Burroughs-Wellcome

All of these drugs may cause fetal abnomalities. Pregnancy should be excluded before they are used and reliable birth control methods should be used by women receiving them.

Randomization:

The patient's birth month will determine her therapy. Patients born in even-numbered months will receive melphalan; those born in odd-numbered months will receive the CMF combination.

Treatment regimens:

Melphalan 7 mg./M^2 p.o. per day for five days (maximum total 70 mg.). Repeat every 6 weeks for 8 courses. Prior to each dose of medication, the patient will need a CBC, platelet count and weight recording. Careful questioning should be done for fever, nausea, vomiting, signs of infection and abnormal bleeding. At three week intervals, also, the patient will need a CBC and platelet count. If white blood cell count is less than 4,000/mm^3 and platelet count is less than 150,000/mm^3 at the end of six weeks, treatment will be delayed two weeks. If counts have not recovered to normal by eight weeks, the ABC Project oncologist should be contacted for advice. A chest X-ray and SMA_{12} should be done every three months. The Chemotherapy Form will be completed at each patient visit. One copy will be retained in the patient's chart and duplicate will be sent to the ABC Project office.

CMF Combination:

Cyclophosphamide	300 mg/M^2 IV. push
Methotrexate	30 mg/M^2 IV. push
5-fluorouracil	300 mg/M^2 IV. push

These can be conveniently given in series via a butterfly needle with one injection. Repeat every two weeks for 24 courses. Prior to each dose of medication the patient will need a CBC and platelet count and weight recording. Careful questioning should be done for fever, mouth sore, rash, nausea, vomiting, symptoms of infection and abnormal bleeding. If white blood cell count is less than 4,000/mm^3 and platelet count is less than 150,000/mm^3, that dose will be omitted, and the next dose of all drugs will be reduced by 50 per cent. If 50 per cent doses are tolerated satisfactorily, subsequent dosages will be escalated to 75 per cent and to 100 per cent as tolerated. Treatment will not be resumed in any case until the white cell and platelet counts have risen to the above levels. A chest X-ray

and SMA_{12} will be done every three months. The Chemotherapy Form will be completed at each patient visit. One copy will be retained in the patient's chart and duplicate will be sent to the ABC Project office.

Any patient who develops recurrent disease during adjuvant chemotherapy will be removed from the adjuvant study and treated appropriately for her relapse.

Follow-up

Patient follow-up is an important part of this program. In addition to assuring the best medical care for patients, follow-up remains essential to reliable treatment evaluation in such randomized prospective studies. Follow-up may be effected by the operating surgeon or other physician participating in care of the patient. Patients not receiving adjuvant chemotherapy should be seen at three month intervals for three years, then at six month intervals for five years, and yearly intervals after eight years (see Chart I). The Follow-Up Form will be forwarded from the ABC Project office at U. A. B. to the surgeon in advance of the patient's visit, so that it can be completed during the visit and returned to the ABC Project office in the envelope furnished. At each follow-up visit, the patient should have a careful history and physical examination with special attention to the contralateral breast, chest-wall, axillae, supraclavicular areas, liver and weight. A pelvic examination should be done yearly. A chest film should be done at six month intervals for two years and then yearly, if feasible. A mammogram should be done of the contralateral breast at two and five years after surgery, and a bone scintiscan should be done at one and two years following surgery. Suspicious areas for bone involvement should be X-rayed if they become symptomatic. A SMA_{12} (or Alkaline Phosphatase) and CBC should be done at yearly intervals.

Node positive patients receiving chemotherapy require much closer follow-up. The follow-up plans during the course of post-operative chemotherapy, as previously outlined in the section on adjuvant chemotherapy, should be followed for this group of patients. After these patients complete the full course of drug therapy, the subsequent visits will be the same as recommended above.

Follow-up information will be recorded on the Follow-Up Form for all patients, and on the Chemotherapy Form during the course of adjuvant chemotherapy. The forms will be forwarded to the clinicians in triplicate from the ABC Project office with an enclosed return envelope at the appropriate time for follow-up. The surgeon may retain one copy for his own records if desirable and return the others.

CHART I - FOLLOW-UP SUMMARY CHART

MONTHS	3	6	9	12	15	18	21	24	27	30	33	36	42	48	54	60	66	72	78	84	90	96	108	120
Hx. & P.E.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pelvic				✓				✓				✓		✓		✓		✓		✓		✓	✓	✓
Chest Film		✓		✓		✓		✓				✓		✓		✓		✓		✓		✓	✓	✓
Mammogram								✓								✓								
Bone Scintiscan				✓				✓																
SMA_{12}				✓				✓				✓		✓		✓		✓		✓		✓	✓	✓
CBC				✓				✓				✓		✓		✓		✓		✓		✓	✓	✓
Bone X-rays	p.r.n. symptoms																							

Informed Consent

In any therapeutic trial—surgical or medical—the patient's consent will have to be obtained. Explanation to the patient of the division into groups is essential. She should understand that inclusion in the study is not mandatory to receive treatment, but is wise because the most effective therapeutic mortality is not yet clear.

The patient should be advised that an undesirable result may be sustained with any therapeutic intervention including those planned for breast cancer in this project. One copy of the intended form for this project will remain in the surgeons file and a duplicate will be mailed to the ABC Project office.

Evaluation of Results

It will be the responsibility of the ABC Project office to coordinate the data collection to ensure good patient follow-up and subsequent evaluation of the end results of these proposed prospective clinical trials. A copy of each of the records (Case Registration Form, Chemotherapy Forms, Follow-Up Forms, Consent Form, Operative Notes, and Pathology Report) will be kept in the ABC Project office. These records will be treated with the utmost confidentiality. After the information is received and reviewed for accuracy and completeness, it will be converted to symbols on punch cards, so that it may be analyzed easily by the use of computers.

Problems and Questions

Any questions may be answered by calling the MIST LINE and asking for the Alabama Breast Cancer Project.

When the project begins, the project coordinator and nurses will be available for office visits in Alabama to assist with specific problems at the participating physician's request.

Summary

1) The Alabama Breast Cancer Project (ABC Project) is a statewide network for breast cancer management coordinated by the University of Alabama in Birmingham, Comprehensive Cancer Center.

2) The overall purpose of the project is to reduce the morbidity and mortality from breast cancer in Alabama; the programs envisioned include the broad areas of Clinical Services, Continuing Education and Training, and Research.

3) Specific objectives are:

   a. To develop treatment and management recommendations for all breast cancer patients to be utilized at the University of Alabama in Birmingham, School of Medicine, and to make these available to the physicians and hospitals in the State of Alabama to adopt, insofar as they desire and have necessary equipment.

   b. To compare the efficacy of modified radical mastectomy vs. radical mastectomy in primary operable breast cancer.

   c. To compare efficacy of combination vs. single adjuvant chemotherapy given post-operatively for one year to patients with primary operable breast cancer who have histologically positive axillary lymph nodes.

   d. To provide professional education relative to breast cancer for physicians, nurses and paramedical personnel.

   e. To provide a data collection system that will ensure good patient follow-up and adequate evaluation of the end results.

   f. To provide planning and coordinating of the programs through a core staff with their offices located at the ABC Project office, University of Alabama in Birmingham, School of Medicine.

4) The underlying rationale for the ABC Project was presented in:

   Maddox, W. A., Laws, H., and Carpenter, J. T. Jr.
   Breast Cancer Management Part I
   Journal of the Medical Association of the State of Alabama, 44: 293-302, Dec., 1974.

5) Breast Cancer Management Part II, this article, encompasses the overall plans as well as the specific details relative to two prospective randomized studies. One is designed for evaluation of the surgical treatment of primary operable breast cancer patients comparing the standard radical mastectomy and the modified radical mastectomy. The second, for women with pathologically positive axillary lymph nodes, will compare post-operative adjuvant chemotherapy—a single agent vs. combination chemotherapy.

6) It is anticipated that the project will begin by June, 1975. Prior to that time, personal letters will be sent to surgeons in Alabama to ask for their support and active participation.

7) You, the physicians of Alabama, are asked to consider these proposed programs. There is no doubt that the success of the management of patients with breast cancer in Alabama will be directly influenced by the medical care you offer and the support which you help engender.

For further information call the MIST LINE and ask for the Alabama Breast Cancer Project; or write to William A. Maddox, M. D., Alabama Breast Cancer Project, University of Alabama in Birmingham, P. O. Box 193, University Station, Birmingham, Alabama 35294.

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(Continued on Page 521)

Rondomycin®
(methacycline HCl)

CONTRAINDICATIONS: Hypersensitivity to any of the tetracyclines.
WARNINGS: Tetracycline usage during tooth development (last half of pregnancy to eight years) may cause permanent tooth discoloration (yellow-gray-brown), which is more common during long-term use but has occurred after repeated short-term courses. Enamel hypoplasia has also been reported. **Tetracyclines should not be used in this age group unless other drugs are not likely to be effective or are contraindicated.**
Usage in pregnancy. (See above **WARNINGS** about use during tooth development.)
Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.
Usage in newborns, infants, and children. (See above **WARNINGS** about use during tooth development.)
All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrease in fibula growth rate observed in prematures given oral tetracycline 25 mg/kg every 6 hours was reversible when drug was discontinued.
Tetracyclines are present in milk of lactating women taking tetracyclines.
To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The anti-anabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.
Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.
PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.
In venereal disease, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.
Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.
In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).
Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.
Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.
ADVERSE REACTIONS: Gastrointestinal (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in the anogenital region.
Skin: maculopapular and erythematous rashes; exfoliative dermatitis (uncommon). Photosensitivity is discussed above (See **WARNINGS**).
Renal toxicity: rise in BUN, apparently dose related (See **WARNINGS**).
Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.
Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.
Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.
Over prolonged periods, tetracyclines have been reported to produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.
USUAL DOSAGE: Adults—600 mg daily, divided into two or four equally spaced doses. More severe infections: an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. Gonorrhea: In uncomplicated gonorrhea, when penicillin is contraindicated, 'Rondomycin' (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule: 900 mg initially, followed by 300 mg q i.d. for a total of 5.4 grams.
For treatment of syphilis, when penicillin is contraindicated, a total of 18 to 24 grams of 'Rondomycin' (methacycline HCl) in equally divided doses over a period of 10-15 days should be given. Close follow-up, including laboratory tests, is recommended.
Eaton Agent pneumonia: 900 mg daily for six days.
Children—3 to 6 mg/lb/day divided into two to four equally spaced doses.
Therapy should be continued for at least 24-48 hours after symptoms and fever have subsided.
Concomitant therapy: Antacids containing aluminum, calcium or magnesium impair absorption and are contraindicated. Food and some dairy products also interfere. Give drug one hour before or two hours after meals. Pediatric oral dosage forms should not be given with milk formulas and should be given at least one hour prior to feeding.
In patients with renal impairment (see **WARNINGS**), total dosage should be decreased by reducing recommended individual doses or by extending time intervals between doses.
In streptococcal infections, a therapeutic dose should be given for at least 10 days.
SUPPLIED: 'Rondomycin' (methacycline HCl): 150 mg and 300 mg capsules, syrup containing 75 mg/5 cc methacycline HCl.

Before prescribing, consult package circular or latest PDR information.

Rev. 6/73

WALLACE LABORATORIES
CRANBURY, NEW JERSEY 08512



When the focus is on bronchitis due to susceptible strains of *H. influenzae* and pneumococci*

Rondomycin® 300 mg. Capsules

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Antibiotic Prophylaxis In Obstetrics And Gynecology

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Considerable discussion has arisen regarding the use of antibiotics in the prevention of infectious operative morbidity in obstetric and gynecologic surgery. Goosenberg et al.[1] reintroduced the topic of chemoprophylaxis in the vaginal hysterectomy in 1969. The fact that endogenous vaginal microflora is responsible for post-operative infectious morbidity in obstetric and gynecologic patients has been recognized for some time.

Earlier attempts were made to alter the flora and prevent febrile morbidity using vaginal suppositories containing penicillin.[2] Systemic antibiotic prophylaxis received significant attention in the surgical literature of the 50's and 60's. Few situations were shown to benefit through prophylaxis.[3]

Operations on contaminated areas such as the colon and pancreaticobiliary tree and attempts at pre-operative sterilization of the operative site decreased morbidity in some studies.[4,5] The analogy of the genital tract also being preoperatively contaminated led to the recent trials. The purpose of these studies was to evaluate whether antimicrobial prophylaxis decreased the morbidity associated with obstetric and gynecologic surgery and prevented the infrequent, but problematic life-threatening infection.

A comparison of studies of the existing literature is difficult. The difficulty arises primarily because of the standard definition of morbidity and the variation in route and dosage schedules of antibiotics. The majority of studies have used the standard definition of febrile morbidity i.e., a temperature greater than 100.4° for any two days post-operatively, excluding the first 24 hours. With such a definition, all studies to date show a dramatic decrease in the prophylactically treated group. Unfortunately, not all studies had adequate control populations, and not all studies were doubly blinded.

Febrile morbidity is in itself of little consequence. On the other hand, patients may have clear infectious morbidity but do not qualify because of lack of fever. In reviewing such studies, two factors may be measured as significant parameters of reduced morbidity. It is essential that the serious life-threatening post-operative infection be reduced, if not eliminated. Also, if a significant decrease in the hospital stay can be demonstrated, the economic savings could be substantial for both the individual and the hospital involved. Either of these criteria, if positive, would warrant the use of prophylactic antibiotics.

By definition, prophylaxis implies therapy prior to the initiation of infection, and some investigators believe that therapy should be maintained only for a brief period of time. Others use antibiotics prophylactically, but on a therapeutic dosage schedule. Opponents to the more intensive therapy argue that the increased amount of antibiotics in the environment predisposes to the selection of a more virulent nosocomial flora. Also, such therapy may predispose a patient, if infection supervenes, to a more virulent bacteria. A final argument states that such dosages are not necessary. Ongoing studies of the microbial flora of patients in hospitals using prophylactic antibiotics are necessary to resolve these questions completely.

Two types of operations have been primarily considered when discussing prophylactic antibiotics, the vaginal hysterectomy[6-10] and the Cesarean Section.[11-13] Vaginal hysterectomy with or without colporrhaphy

is inherently predisposed to post-operative infection. The potentially pathological bacterial inhabitants of the vagina frequently cause infection in the milieu of edematous vascularly compromised tissue, often in the presence of collections of serum and blood. This is especially true in the pre-menopausal patient who has an increased blood supply to the pelvis and often active cervical disease. All studies indicate that this population benefits from prophylactic antibiotics either in a short term or long term dosage regime. Hospital stay is usually decreased as well and a dramatic reduction is found in the incidence of both cuff cellulitis and severe pelvic infections.

In the post-menopausal group, the situation is not so clear. As with so many clinical situations, therapy must be modified to the individual's needs. The infectious morbidity may be uniformly low in such a population making prophylaxis unnecessary. If, however, one sees significant infectious morbidity in the post-menopausal group, prophylaxis should be used. Short term therapy has been successful using cephalordine 1 gm intramuscularly on call to surgery, on return to the recovery room, and at bedtime the day of surgery.[7] A chemical determination of renal function should be obtained before using this antibiotic. Successful studies using short or long term combination antibiotics has been reported effective as well.

The data regarding prophylaxis with Cesarean Section is not clear. Operative delivery may not be deemed necessary, until considerable time has elapsed since the rupture of the membranes. After prolonged rupture of the membranes or multiple vaginal examinations, the risk of subclinical amnionitis or endometritis is substantial—making controlled studies difficult. Again, however, all studies reported to date show a marked decrease in morbidity when prophylaxis is utilized. The studies are not in agreement on the reduction of endometritis or the infection causing serious illness. The only study using short-term antibiotics fails to show a decrease in either of these categories.[12] The reduction in morbidity is primarily that of wound infections. If sub-segments of the population were examined, there was a significant absence of endometritis in the patients undergoing primary Cesarean Sections with intact membranes. All the studies to date are relatively small considering the heterogeneity of an in-labor obstetric population. Cephalothin given intravenously in a dosage of 2 gm initially and 1 gm every 6 hours for 36 hours followed with cephalexin for an additional 3-5 days appears most efficacious.[13] Penicillin and kanamycin or streptomycin have also been used in a therapeutic regime.

The understanding of the possible mechanism of prophylaxis is available in the surgical literature. There is a critical period of time in which infecting organisms are the most susceptible. Antibiotics were found to be effective in preventing experimental wound infections in such a situation, but work maximally, only if a tissue level of antibiotic was established prior to inoculation.[14, 15]

Multiple types and regimes of antibiotics have been used for obstetric and gynecologic studies. The type is apparently not important, but there is a suggestion that bacteriostatic drugs may be less effective.[5] It is best to choose an antibiotic that is in active use in the community reserving the more restricted antibiotics for use in the seriously ill patient. Short term therapy has been as succesful as more therapeutic schedules in reducing morbidity with vaginal surgery, but this is unclear for Cesarean Section. The possible fetal and new born morbidity associated with prophylaxis is unknown. The fetus may concentrate antibiotics inappropriately and the transplacental passage of antibiotics may further confuse the already difficult diagnosis of neonatal sepsis. Despite the concern of the introduction of resistant bacteria into the population, there is no evidence to date that this has been a problem.

The current recommendations using available data would be as follows: If significant morbidity exists within one's gynecologic practice, short term low dose prophylaxis in

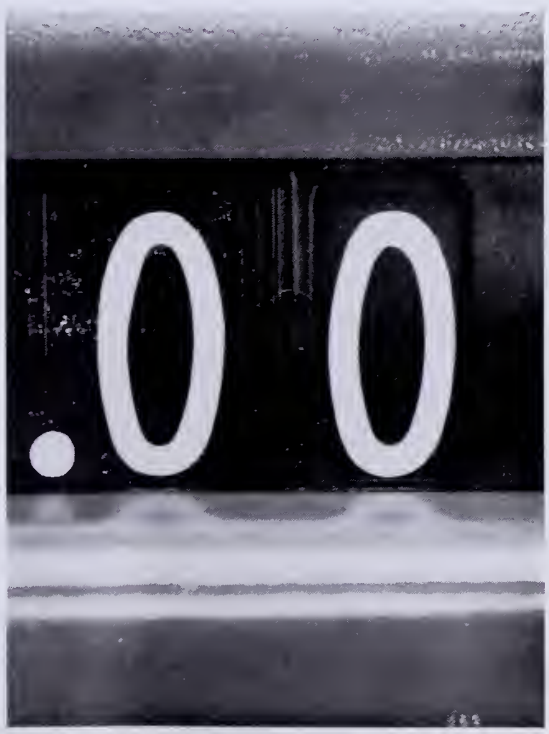
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Pregnancy and Lactation: Safe use not established; weigh potential benefits against potential hazards in pregnancy, nursing mothers (concentrations in breast milk are two to four times that in plasma), or women of childbearing potential.

Children Under Twelve: Not recommended.

Potentially Hazardous Tasks: Driving a motor vehicle or operating machinery.

Additive Effects: Effects of carisoprodol and alcohol, other CNS depressants or psychotropic drugs may be additive.

Drug Dependence: Use cautiously in addiction-prone patients.
Precautions: To avoid excess accumulation, use caution in patients with compromised liver or kidney function.
Adverse Reactions: *Central Nervous System:* Drowsiness, dizziness, vertigo, ataxia, tremor, agitation, irritability, headache, depressive reactions, syncope, insomnia, idiosyncratic reaction (see "Warnings").

Allergic or Idiosyncratic: In previously unexposed patients, these are usually seen after 1-4 doses and include rash, erythema multiforme, pruritus, eosinophilia, fixed drug eruption with cross reaction to meprobamate. Asthmatic episodes, fever, weakness, dizziness, angioneurotic edema, smarting eyes, hypotension and anaphylactoid shock may be manifestations of severe reactions. In such cases, stop carisoprodol and initiate appropriate treatment (e.g., epinephrine, antihistamines, corticosteroids).

Cardiovascular: Tachycardia, postural hypotension, facial flushing.

Gastrointestinal: Nausea, vomiting, hiccup, epigastric distress.

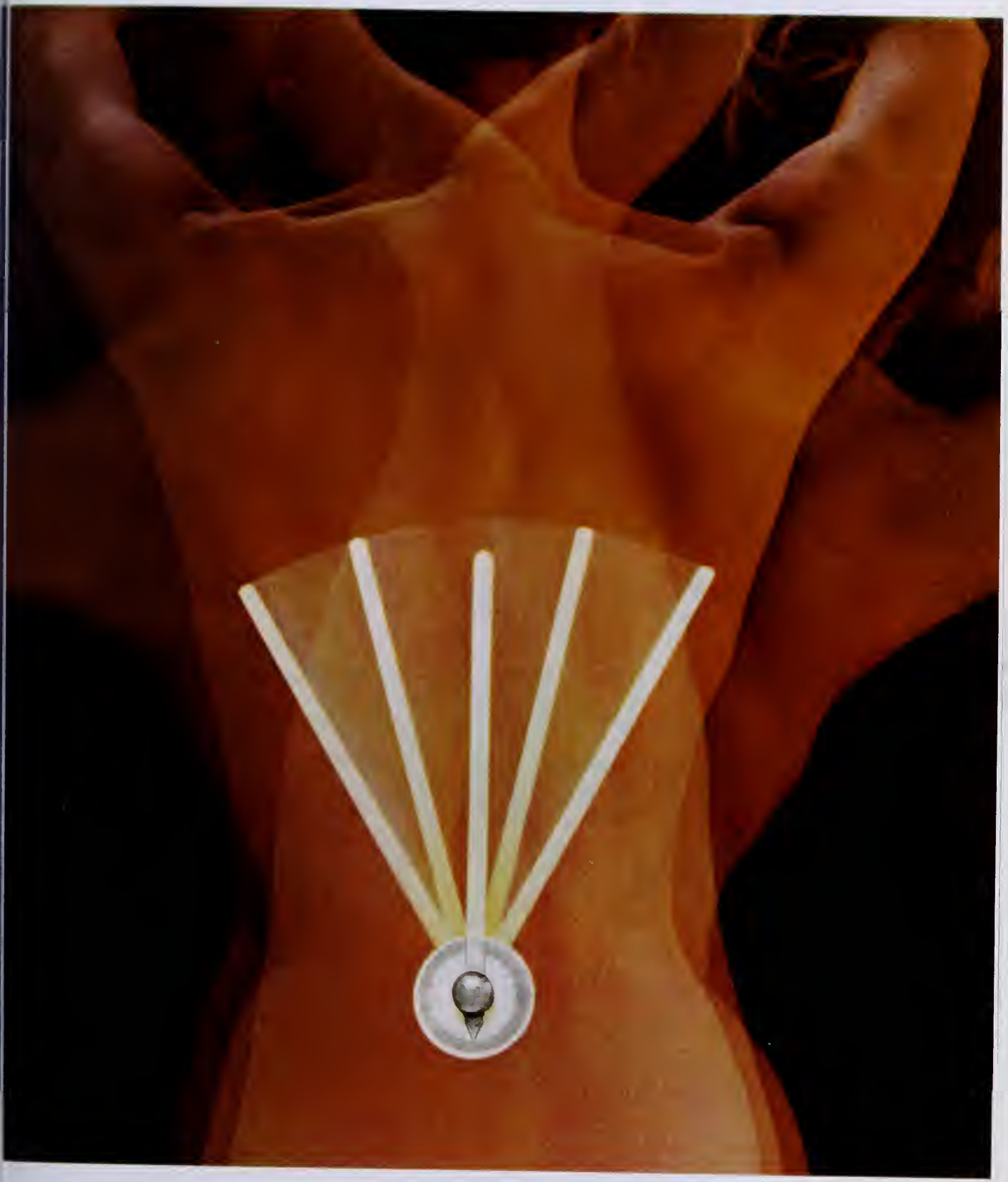
Hematologic: Leukopenia and pancytopenia (on carisoprodol plus other drugs).
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Overdosage: Has produced stupor, coma, shock, respiratory depression, and, very rarely, death. The effects of an overdosage of carisoprodol and alcohol or other CNS depressants or psychotropic agents can be additive even when one of the drugs has been taken in the usual recommended dosage. Empty stomach, treat symptomatically; cautiously give respiratory assistance, CNS stimulants, pressor agents as needed. Carisoprodol is metabolized in the liver and excreted by the kidney. Diuresis and dialysis have been used successfully with related drug meprobamate. Carefully monitor urinary output; avoid overhydration; observe for possible relapse due to incomplete gastric emptying and delayed absorption.

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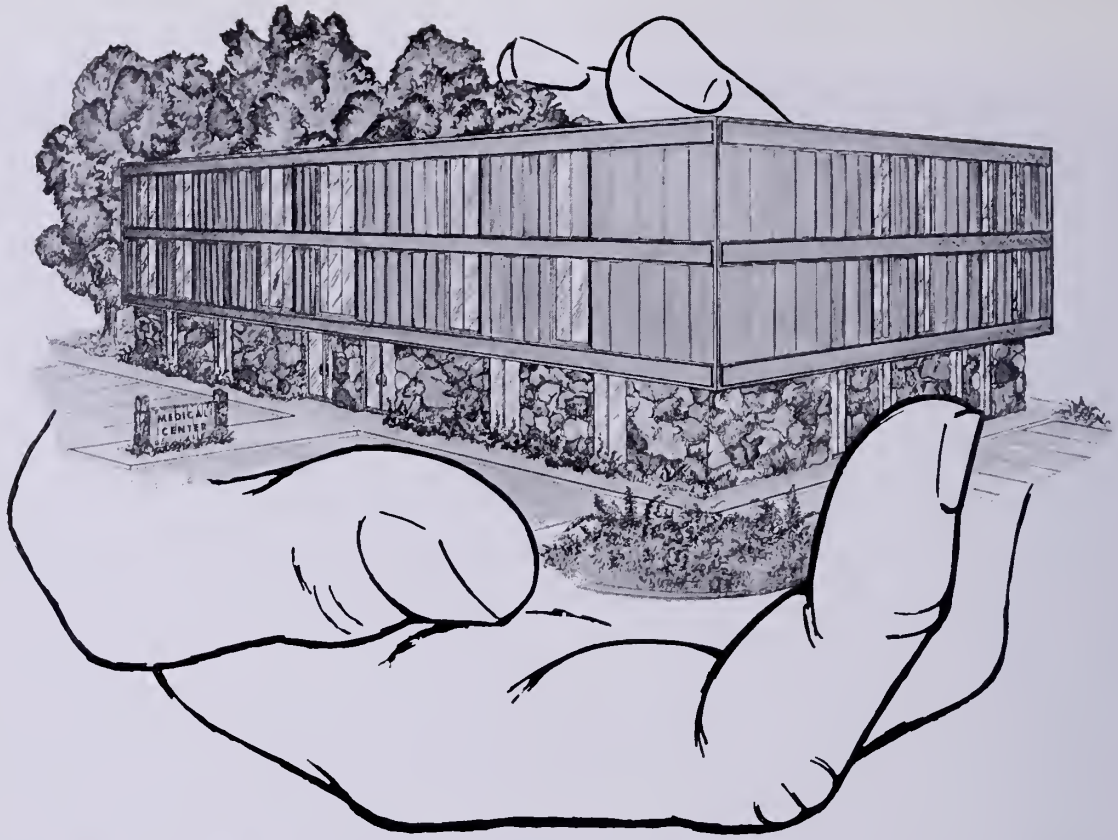
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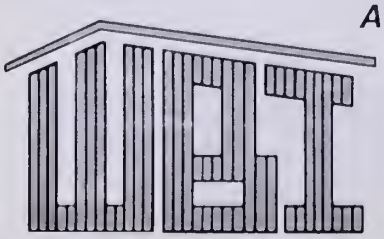
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the pre-menopausal patient undergoing vaginal surgery is appropriate. If significant morbidity exists in patients undergoing Cesarean Section, prophylaxis using a more therapeutic regime seems reasonable. Further data is anticipated to answer such questions more discretely in the future.

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Diabetic Ketoacidosis In Adolescents: A Guide To Management

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Introduction

Diabetes Mellitus is an extremely important chronic disorder of young people. While its exact incidence in adolescents is not known, of the 86 million persons in the USA under 21 years of age, 340,000 of them have insulin-requiring diabetes. The cost of physician and hospital care for this population is enormous.

A tendency to ketoacidosis is among the characteristics of juvenile diabetes mellitus (Table 1) and ranks high as a problem for the adolescent group. Approximately 15 per cent of patients with juvenile diabetes first

CHARACTERISTICS OF JUVENILE DIABETES MELLITUS
Rapid Onset
Early Remission Lasting Several Months ("Honeymoon Period")
Later Exacerbation With Development Of Complete Diabetes
Tendency To Ketoacidosis, Labile Blood Sugars, And Nocturnal Hyperglycemia
Less Optimal Control With Arrival At End During Adolescence

Table 1

present in diabetic coma[1]. Following diagnosis, patients often require no further hospitalization for treatment. One recent report indicated that diabetic ketoacidosis might possibly be eliminated entirely with optimal outpatient care[2]. Many adolescents with diabetes, however, require occasional, and in some cases, frequent admissions with this complication.

The Adolescent Unit of the Department of Pediatrics, School of Medicine, University of Alabama Medical Center, encounters this serious and life-threatening condition not infrequently. As in other age groups, it represents a medical emergency demanding prompt and expert management. This paper is based upon our experience with diabetic adolescents and is presented as a guide to management which hopefully will be of value to those physicians who care for these patients.

Etiologic Factors in Diabetic Ketoacidosis

Diabetic Ketoacidosis is a condition characterized by relative or absolute lack of insulin effect resulting in ketonemia and a decline in the blood pH and bicarbonate level. By definition, ketoacidosis occurs when the pH is less than 7.25 or the serum bicarbonate less than 10 milli-equivalents per liter, (or both)[3].

There are several factors which may bring about ketoacidosis in the adolescent with known diabetes or make manifest previously unrecognized disease. These factors include physiologic phenomena, complications of treatment, psychophysiologic interactions and psychologic responses to stimuli. (Table 2).

FACTORS IN DIABETIC KETOACIDOSIS IN ADOLESCENTS
Physical Stress
? Metabolic Eccentricities
? Increased Susceptibility To Infection
Therapeutic Complications
Psychosocial Stress Of Adolescence
Development Goals
Psychological Responses
Coping Mechanisms
Conscious Sabotage
Inability To Follow Medical Regimen
Low I. Q.
Inadequate Knowledge Of Disease
Unknown

Table 2

For the child with an underlying genetic predispostion to diabetes, the pubescent growth spurt may precipitate the acute disease. The initial presentation is not infrequently ketoacidosis, although clinical symptoms may have been present for several days to a few weeks.

Stress in any form raises the blood sugar and increases lipolysis with a resultant increase of free fatty acids. One may postulate that metabolic eccentricities exist during adolescence which make these youngsters react severely to physical stress, such as slight changes in diet, insulin intake, exercise or even general health. Another important example of physical stress is infection. The possibility that adolescents might have a greater susceptibility to infection than other age groups has been suggested. Immunologic differences in adolescents in com-

parison with children and adults have been postulated to exist, but have not been documented.

Frequent bouts of acidosis can be a clue to overtreatment, a not uncommon error in the management of children with diabetes[4]. The physiologic phenomenon of hyperglycemia following prolonged hypoglycemia, called the Somogyi Effect, is demonstrated here. If the resulting glycosuria and possible ketonuria are seen as indications for more insulin, the situation may be worsened.

Psychosocial stresses are also important in the etiology of diabetic ketoacidosis. A relationship between anxiety and diabetic symptomatology has previously been noted[5], suggesting that emotional disturbance may exert effects upon the metabolic processes. No less than non-diabetic teenagers, these adolescents experience conflicts within the family[6], among their peers and with members of the opposite sex. These conflicts may thus represent direct precipitating factors. Psychosocial stresses may also produce ketoacidosis indirectly as a result of non-compliance with therapy, this being a problem interfering with successful management of a number of chronic diseases occurring during this period[7,8]. The striving for the important psychological goals of adolescence is in itself capable of producing stress (Table 3)[9].

PSYCHOLOGICAL GOALS OF ADOLESCENCE
Independence And Separation From Parents
Coping With Sexuality
Establishment Of Ego-Identity And Self-Image
Achievement Of Vocational Awareness

Table 3

With the added burden of illness, acute or chronic, psychological coping mechanisms which are characteristic of this stage of development come into play (Table 4)[10], as well as distortions of body image[11]. In the

PSYCHOLOGICAL RESPONSES TO ILLNESS IN ADOLESCENTS
Denial
Intellectualization
Compensation
Projection
Regression
Withdrawal
Suicide

Table 4

adolescent with diabetes, these responses can result in unconscious sabotage of the medical regime and thus lead to the development of ketoacidosis. Certainly, a proportion of adolescents with frequent recurrences may unconsciously, through poor or non-compliance, be escaping from their unique life stresses by seeking the protective and relatively friendly environment of the hospital. In some patients, this may represent a suicide attempt[10, 12].

Finally, there are diabetic teenagers who, for reasons which are poorly understood and despite assumedly good outpatient care, require numerous hospital admissions for treatment of ketoacidosis. This difficult group highlights the fact that adolescents constitute a group which deserves further research and, certainly, greater medical interest[9].

Diagnosis of Diabetic Ketoacidosis

The diagnosis of diabetic ketoacidosis must be made without delay. While this is less difficult when diabetes is known to exist, it does require familiarity with the common symptoms and signs; and, in the case of previously undiagnosed diabetes, a knowledge of the differential diagnosis as well.

Historically, deterioration may have taken place over several days and the events surrounding this occurrence will need to be elicited. Vomiting is present in approximately 2/3 of the patients, complaints of abdominal

pain are not infrequent and abdominal tenderness may be noted.

One of the most striking clinical signs of ketoacidosis is Kussmaul breathing—deep pauseless respiration—which reflects the metabolic acidosis. Often, there will be the smell of acetone on the breath. Typically, there will be an impaired conscious state ranging from mild confusion to deep coma, having no necessary correlation with the degree of metabolic disturbance. Rarely, diabetic patients in ketoacidosis may present with focal neurological signs which may mimic neurosurgical conditions[13]. Evidence of dehydration is one of the most impressive physical findings, and the extent of this should represent the main focus of the physical examination. Soft eye-balls and poor skin turgor together with dry mucous membranes will be found. In cases with severe dehydration, circulatory collapse, hypotension and ashen-grey skin may be present. The initial physical examination may reveal a site of infection which may have been the precipitating factor.

There are also characteristic laboratory findings. Urine will have a high specific gravity and massive amounts of glucose, acetone and protein will be detected. The blood will show the *diagnostic triad of hyperglycemia, ketonemia and low bicarbonate level.* The pH level of arterial or venous blood is perhaps the best guide to the extent of acidosis. Serum electrolytes performed at diagnosis provide a base-line for treatment. Due to hemoconcentration, the hematocrit will usually be increased and a white cell count will reveal leucocytosis with shift to the left, a common finding which is not therefore a reliable indicator of infection.

Some comments about differential diagnosis are appropriate. The common presenting complaints may result in a diagnosis of gastroenteritis. Other erroneous initial diagnoses include emotional problems and even acute abdomen[14]. Hyperosmolar non-ketotic coma, a more common complication of adult onset diabetes which may occur also in non-diabetics, is a rare occurrence in adolescents.

(Continued on Page 507)

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Warnings: Use with caution in young children, because of variable response, and with extreme caution in patients with cirrhosis and other advanced hepatic disease or abnormal liver function tests, because of possible hepatic coma. Diphenoxylate HCl may potentiate the action of barbiturates, tranquilizers and alcohol. In theory, the concurrent use with monoamine oxidase inhibitors could precipitate hypertensive crisis.

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Adverse reactions: Atropine effects include dryness of skin and mucous membranes, flushing and urinary retention. Other side effects with Lomotil include nausea, sedation, vomiting, swelling of the gums, abdominal discomfort, respiratory depression, numbness of the extremities, headache, dizziness, depression, malaise, drowsiness, coma, lethargy, anorexia, restlessness, euphoria, pruritus, angioneurotic edema, giant urticaria and paralytic ileus.

Dosage and administration: ***Lomotil is contraindicated in children less than 2 years old.*** Use only Lomotil liquid for children 2 to 12 years old. For ages 2 to 5 years, 4 ml. (2 mg.) t.i.d.; 5 to 8 years, 4 ml. (2 mg.) q.i.d.; 8 to 12 years, 4 ml. (2 mg.) 5 times daily; adults, two tablets (5 mg.) t.i.d. to two tablets (5 mg.) q.i.d. or two regular teaspoonfuls (10 ml., 5 mg.) q.i.d. Maintenance dosage may be as low as one fourth of the initial dosage. Make downward dosage adjustment as soon as initial symptoms are controlled.

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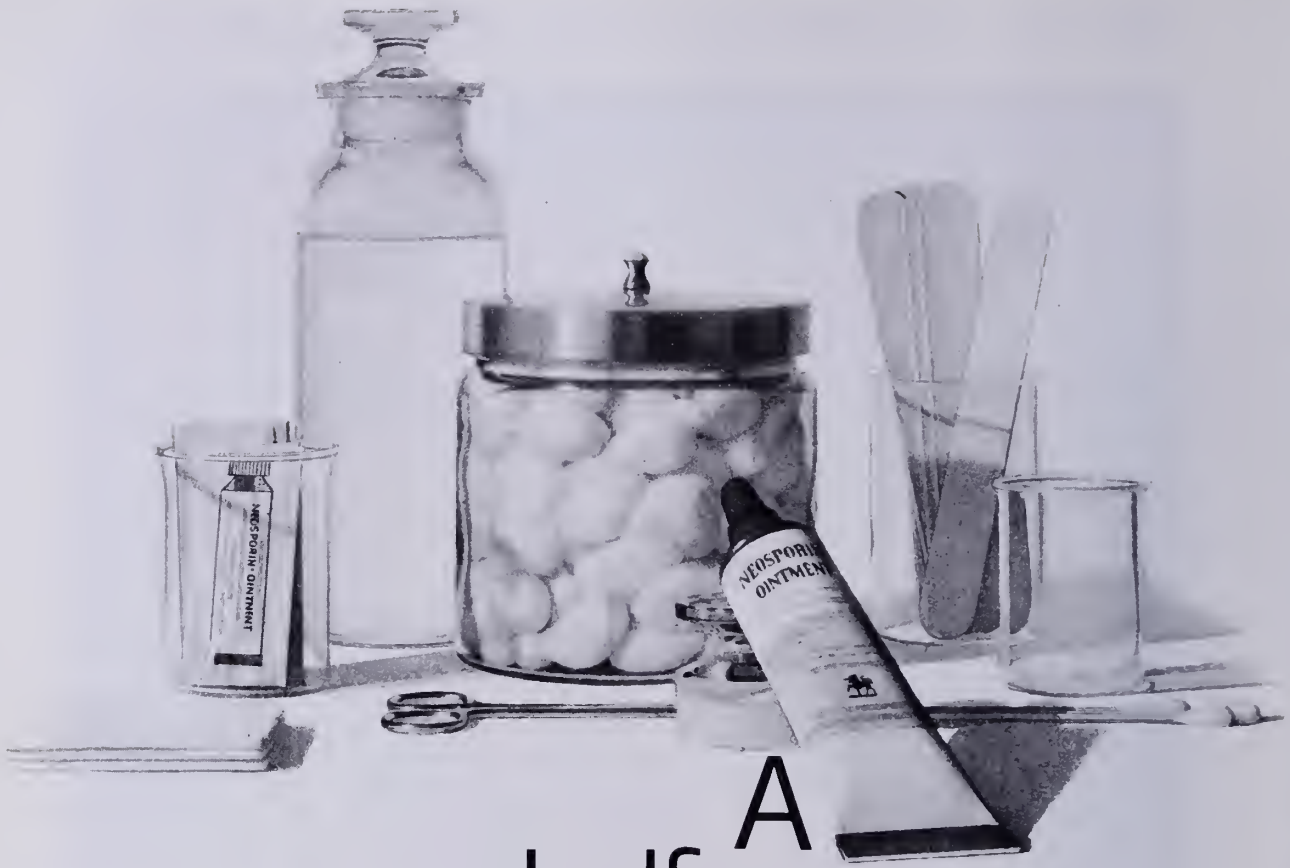
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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of th body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of pers allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. P

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Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

Neither inconvenient potassium supplements nor special K^+ rich diets needed as a rule. Just 'Dyazide' once or twice daily for maintenance.



Two prime reasons patients drop out of hypertensive therapy are (1) the patient failed to understand directions, and (2) the regimen was overly complicated. Dosage is simple with 'Dyazide', easily understood, once or twice daily, depending on response. There's no need to complicate the regimen with potassium supplements or unwieldy potassium-rich diets.

Before prescribing, see complete prescribing information in SK&F literature or *PDR*. The following is a brief summary.

Indications: Edema associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. Also, mild to moderate hypertension.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: **Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired.** Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, **check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently**—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

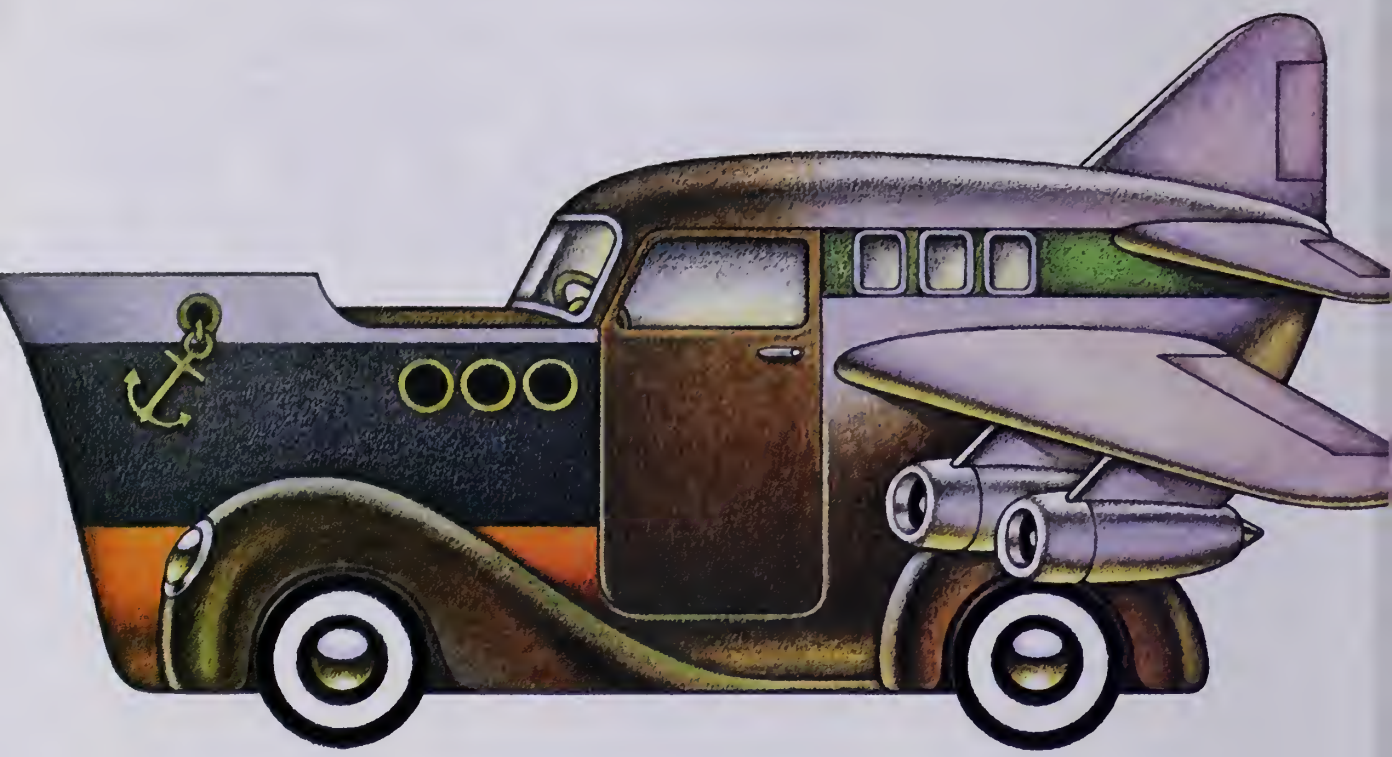
Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

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Dosage: 25 to 50 mg. 1 hour before travel.

Available on prescription only.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

CONTRAINDICATIONS. Administration of Antivert during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

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A division of Pfizer Pharmaceuticals
New York, New York 10017

Antivert®/25 Chewable Tablets
(meclizine HCl) 25 mg.

for motion sickness

(Continued from Page 502)

As a single entity, hyperglycemia occurring in conditions other than diabetes, such as diffuse neurological injury or drug ingestion, will rarely cause confusion. Likewise, ketosis may occur in hypercatabolic states, starvation and in patients on ketogenic diets. Causes of a metabolic acidosis other than diabetes may need to be excluded. In the adolescent population, ingestion of such toxic substances as ammonium chloride and salicylates may be seen, and acute or chronic renal failure should not be forgotten. In all but the most unusual circumstances, however, the classical triad of hyperglycemia, ketonemia and acidosis will invariably lead to the correct diagnosis of diabetic ketoacidosis.

Why Use A Protocol?

Our primary concern here is with the optimal treatment of very ill adolescents. To the doctor having limited clinical experience with diabetic ketoacidosis, confusion may result from the variety of approaches to treatment which are used and taught. Furthermore, since the vast majority of patients recover whatever the particular details of care employed, how is the clinician to decide which method is best? When faced with this challenging clinical situation, however, he or she must know in specific terms what is expected. A written protocol outlining suggested laboratory procedures and treatment regimes provides a standard to which proposed treatment may be compared.

Inexperience in treating teenagers with this condition can result in over-treatment, examples of which might be an inappropriately rapid or large intravenous push of sodium bicarbonate, or unnecessarily large doses of insulin. Therapies appropriate to small children, if not suitably expanded, may dangerously delay recovery in an adult-sized teenager. A *laissez-faire* attitude toward this illness derives from the low mortality rate for this particular age group, but this can pose a real threat to an adolescent with this potentially fatal complication, particularly if it results in a poorly monitored course or inappropriate therapeutic responses.

Individualization of care and the close monitoring of clinical and laboratory data are extremely important concepts which have recently been re-emphasized[3]. While the individual patient will obviously dictate his or her special needs during the acute phase of treatment, the doctor must be quite familiar with the usual physiological abnormalities and responses to treatment. We wish, therefore, to present our protocol, a sequential plan of management appropriate to adolescents which is based upon ten well-accepted principles of therapy.

Ten Principles of Therapy

The main therapeutic effort should be to avoid ketoacidosis by teaching parents and patients how and when to use regular insulin supplements and by providing for a physician to be readily available by telephone for support in those situations[4]. If hospitalization becomes necessary, however, the patient with diabetic ketoacidosis becomes a top clinical priority, deserving the best possible management.

Fortunately, the death rate for this condition has markedly decreased[15]. The 3-10 per cent mortality quoted for the general population[16] reflects coincidental complications such as myocardial infarction and thrombo-embolic disease which are rare in adolescents. For this group, therefore, the mortality is even less. Deaths have occurred, however, and the teenagers at greatest risk are those with previously undiagnosed diabetes and long delays in treatment.

The following are principles of therapy upon which, we believe, all therapeutic regimes should be based:

(1) STAY WITH THE PATIENT.

It is important for the doctor controlling management to personally see the patient through the most potentially dangerous early period. He should not absent himself, until obvious improvement has occurred and ward orders can be easily followed.

(2) CORRECT DEHYDRATION WITH INTRAVENOUS FLUID.

Dehydration is almost invariably severe and results from osmotic diuresis causing marked water loss and secondary (less severe) salt loss. For the patient who is not in shock, hypotonic saline should be administered intravenously a 0.45 per cent sodium chloride. In most adolescent patients, a total of 6 liters will be required during the first 24 hours. In some centers, the use of normal saline is standard procedure for adolescents and adults, and problems rarely occur with this[17].

Usually, after 4-6 hours of treatment, the blood sugar will be decreasing and the intravenous solution should be changed to 5 per cent glucose in ½ normal saline (or perhaps simply 5 per cent glucose). The rationale for this is to provide substrate for metabolism (and thus avoid utilization of fat), to prevent hypoglycemia and also to reduce the likelihood of cerebral edema which may accompany rapid insulin-induced reduction of blood glucose to levels below 250mg/100ml[18].

(3) CORRECT HYPERGLYCEMIA WITH RAPIDLY-ACTING INSULIN.

If confidently diagnosed at home, the patient should receive 50 units of rapidly-acting insulin there. In the hospital, doses are generally based on blood sugars and given initially as half intravenously and half intramuscularly. Further doses are given every two to four hours until the blood glucose level falls to 250mg/100ml. Traditionally, big doses have been used to overcome the assumed increased insulin requirements of diabetic patients in ketoacidosis with total doses generally in the range of 200-400 units. Recent studies suggest, however, that much smaller amounts of insulin frequently administered intramuscularly may be equally effective[19]. Diabetic ketoacidosis has also been successfully treated by continuous insulin infusion at a rate of approximately six units per hour which provides approximately normal serum levels of insulin[20]. This method is becoming increasingly popular for reasons of its simplicity and predictable response.

(4) CORRECT ACIDOSIS, IF INDICATED, WITH SODIUM BICARBONATE.

Restoration of serum bicarbonate concentrations towards normal will follow insulin administration even in the absence of treatment with alkali-containing solutions. Treatment with sodium bicarbonate should be restricted to patients with severe metabolic acidosis as indicated by a pH of 7.1 or less, or a bicarbonate level of less than 5 milliequivalents per liter. Sodium lactate infusion is avoided as an alternative to bicarbonate since blood levels of lactic acid are known to be slightly elevated in ketoacidotic patients, and tissue oxygenization necessary for its conversion to bicarbonate will often be precarious. Theoretic objections to rapid or complete correction of acidosis exist and are as follows:

(i) Hypokalemia will tend to be accentuated with its attendant dangers.

(ii) The resulting disequilibrium between blood and CSF pH may delay restoration of normal conscious state or produce deterioration.

(iii) The shift to the left of the oxygen dissociation curve brought about by alkalinization may limit tissue oxygen delivery[21].

(iv) Attempts at total correction of acidosis often result in alkalosis.

(5) CORRECT HYPOKALEMIA WITH INTRAVENOUS POTASSIUM CHLORIDE.

Although the patient's serum potassium concentration is generally normal

(Continued on Page 512)

"Gentlemen, congratulations are in order."



"A.H. Robins asked me to compare the banana flavor of their Donnagel®-PG with the real thing and, by jove, I couldn't tell the difference. Not even in sip-by-sip comparison. Amazing!

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"But what I find most impressive is the skillful manner in which A. H. Robins has combined these ingredients with that delicate flavor of vintage bananas. Smashing, absolutely smashing!

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Donnagel with paregoric equivalent
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Kaolin	6.0 g.
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Atropine sulfate	0.0194 mg
Hyoscine hydrobromide	0.0065 mg
Powdered opium, USP (equivalent to paregoric 6 ml.) (warning may be habit forming)	24.0 mg
Sodium benzoate (preservative)	60.0 mg.
Alcohol, 5%	

℞ Available on oral prescription or without prescription in compliance with applicable state and local law.

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Each 5 cc. contains:
Glyceryl guaiacolate ..... 100 mg.
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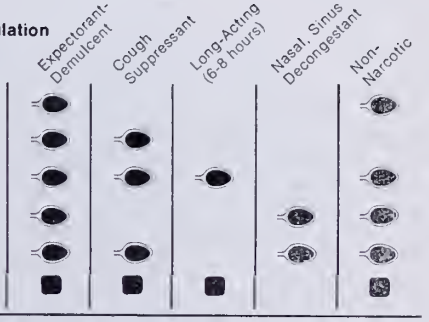
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Select the Robitussin® formulation that treats your patient's individual coughing needs:



A. H. Robins Company, Richmond, Va. 23220

(Continued from Page 508)

or elevated initially, body potassium stores are depleted as a consequence of acidosis, diuresis and frequent vomiting. Serum potassium levels decline, however, following correction of acidosis, cellular uptake of glucose and dilution of the extracellular fluid compartment with rapid rehydration. Consequently, potassium chloride is always needed 3-4 hours after initiation of therapy, provided the patient is not anuric. When hypokalemia is present at the onset, KCl should be added to the initial infusion bottle. Serial measurements of serum potassium are used to determine the need for the administration of potassium chloride. In addition, one should clinically check deep tendon reflexes and bowel sounds, as both will be depressed with serious hypokalemia. An electrocardiogram will reflect body potassium levels.

(6) DO NOT USE STOMACH TUBES AND URINARY CATHETERS AS A ROUTINE.

Stomach tubes and urinary catheters are rarely needed in ketoacidotic adolescents, except in the following important situations:

(i) A comatose patient, or one who continues to vomit after oral intake has been stopped, will require a nasogastric tube with suction to prevent the inherent danger of aspiration.

(ii) A urinary catheter is indicated if no urine has been produced after 3-4 hours of treatment or if the patient is incontinent. If used, this will enable an accurate record of urine output and also permit aspiration from the catheter for testing. By whatever route, however, urine should be tested hourly. Most diabetologists no longer prefer that the spot checks be second voided specimens[4].

(7) BEGIN ORAL FLUIDS AS SOON AS TOLERATED.

With return of consciousness, the patient experiences great thirst. Ice chips may be given initially and later, in the absence of vomiting, oral fluids. This oral intake should not, however, be relied upon as a major source for rehydration or as carbohydrate intake for the prevention of hypoglycemia due to therapy.

(8) IDENTIFY AND TREAT, IF POSSIBLE, THE PRECIPITATING CAUSE.

The initial interview of the patient, his family or friends may uncover the precipitating factor(s). These may include infection, medication error or psycho-social stress. In the former, treatment with an antibiotic may be indicated.

(9) KEEP A FLOW-SHEET AS A RECORD OF MANAGEMENT (Table 5).

This is vital to the successful implementation of the sequential plan of management and should be commenced during the initiation of treatment. One may easily determine when the acute phase has ended. At this point, the patient is responsive, blood glucose is less than 250mg/100ml, serum bicarbonate is increasing and urine shows decreased glycosuria and not more than small amounts of acetone.

(10) TAKE ADVANTAGE OF THE OPPORTUNITY TO COUNSEL.

At recovery from ketoacidosis, the knowledge and attitudes of the patient and his family should be assessed. Previous instructions should be reviewed or, if the patient is a newly diagnosed diabetic, instruction should begin. A specially trained nurse often performs this task[22]. If a team approach is employed[23], the appropriate involvement of a nutritionist, social worker or clinical psychologist may be indicated. During the recovery phase of ketoac-

Time	Clinical Comment	Vital Signs			Urine			Blood Chemistries					Therapy		
		P	R	BP	Vol	Sugar	Acetone	Gluc	Na	K	HCO_3	pH	Insulin	Fluid & KCl	$NaHCO_3$
1st 2 hours															
2nd 2 hours															
2nd 4 hours															
3rd 4 hours															

Table 5

idosis, important information may be elicited and working relationships with the patient established. An understanding of the psychologic reactions of adolescents to illness and hospitalization (Table 4)[10] is important at this time, particularly in the case of a teenager with newly and dramatically diagnosed diabetes. Prior to discharge, a comprehensive approach to management should be formulated.

A Sequential Plan of Treatment

This regime is divided into periods of 2-4 hours, and its success is obviously dependent on the availability and cooperation of the laboratory. Even though the patient is being closely monitored clinically, many decisions can be made only on the basis of accurate biochemical data, at least during the acute early phase when the threat to life is greatest.

First 2 hours:

(i) Take venous blood for sugar and ketone estimation, BUN, electrolytes, CBC, and pH. Test urine for glucose and acetone and obtain base-line ECG.

(ii) Commence IV infusion and give one liter of 0.45 per cent sodium chloride within one hour.

(iii) To calculate the desired dose of insulin, divide the blood sugar by 10; this is the dose of insulin[17] (e.g., if the blood sugar is 800mg per cent, give 80 units) half IV and half IM. In the absence of readily available blood sugars, the patient could safely receive an initial dose of 50-100 units of regular insulin depending on patient's size or the clinical severity.

If constant infusion method is to be used, commence after initial IV bolus, giving no intramuscular doses.

(iv) If indicated (e.g., pH 7.1 or less), add sodium bicarbonate to the first liter of fluid. A dose of 88 milliequivalents is usually adequate, but more may be necessary in a severely acidotic patient.

(v) After the first hour, decrease infusion rate to 300-500 mls per hour.

(vi) If initial serum potassium is low or normal and the patient is voiding, add KCl after first hour (40-60 milliequivalents per liter) and repeat the ECG.

(Continued on Page 516)


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effective against
whipworm...
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tablets
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..and highly effective
agains roundworm, hookworm and pinworm
n single or mixed infections



No dosage calculations — one simplified dosage, egardless of weight or age†

hipworm, roundworm, hookworm and mixed infections:
chewable tablet b.i.d. for 3 consecutive days
inworm: 1 chewable tablet

he patient is not cured three weeks after treatment, a second course of treatment is advised.

ghly effective

	Mean cure rates	Mean egg reduction
hipworm	68%	93%
undworm	98%	99.7%
ookworm	96%	99.9%
nworm	95%	— — —

mplicity of administration patients can take the tablet at any time. an be chewed, swallowed or crushed and mixed with food. No messy liquids to pour.

ot a dye new Vermox* (mebendazole) chewable tablets will not stain clothes, teeth, feces, toilet bowls, etc.

nvenient neither laxatives nor special diet required. Therapy does not interfere with daily activities.

ell tolerated transient symptoms of abdominal pain and diarrhea have occurred . cases of massive infection and expulsion of worms.

rmox has not been extensively studied in children under 2 years of age, and thus, the relative benefit/risk uld be considered before treating these children. Vermox is contraindicated in gnant women. (see: Pregnancy Precautions) and in persons who have shown hypersensitivity to the drug.

cations Vermox* (mebendazole) is indicated for the treatment of *uris trichiuro* (whipworm), *Enterobius vermicularis* (pinworm), *aris lumbricoides* (roundworm), *Ancylostomo duodenale* (common kworm), *Necotor omericonus* (American hookworm) in single or ed infections.

acy varies in function of such factors as pre-existing diarrhea and rointestinal transit time, degree of infection and helminth strains. acy rates derived from various studies are shown in the table below:

	Trichuris	Ascaris	Hookworm	Pinworm
ure rates mean (range)	68% (61-75%)	98% (91-100%)	96% —	95% (90-100%)
reduction mean (range)	93% (70-99%)	99.7% (99.5-100%)	99.9% —	— —

traindications Vermox is contraindicated in pregnant women Pregnancy Precautions) and in persons who have shown hyper- tivity to the drug.

Precautions *PREGNANCY:* Vermox has shown embryotoxic and teratogenic activity in pregnant rats at single oral doses as low as 10 mg/kg. Since Vermox may have a risk of producing fetal damage if administered during pregnancy, it is contraindicated in pregnant women.
PEDIATRIC USE: The drug has not been extensively studied in children under two years; therefore, in the treatment of children under two years the relative benefit/risk should be considered.
Adverse reactions Transient symptoms of abdominal pain and diarrhea have occurred in cases of massive infection and expulsion of worms.
Dosage and administration The same dosage schedule applies to children and adults.
For control of trichuriasis, ascariasis, and hookworm infection, one tablet of Vermox is administered morning and evening on three consecutive days. For control of enterobiasis, a single tablet of Vermox is given.
If the patient is not cured three weeks after treatment, a second course of treatment is advised. No special procedures, such as fasting or purging, are required.
How supplied Vermox is available as tablets, each containing 100 mg of mebendazole, and is supplied in boxes of twelve tablets.

*TRADEMARK

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Ortho Pharmaceutical Corporation,
Raritan, New Jersey 08869

(Continued from Page 513)

(vii) Commence the flow-sheet and document vital signs, urine testing (hourly voided urines), urine output, blood chemistries, and therapy.

Second 2 hours:

(i) Repeat biochemistry (blood glucose, electrolytes and pH) 1½ hours after the initial blood sample has been taken (hopefully with results at 2 hours).

(ii) Continue 0.45 per cent NaCl infusion at a rate of 300-500 mls per hour. One is guided by the clinical condition and the urine output over the previous two hours.

(iii) If the pH is still less than 7.1, repeat the sodium bicarbonate as above

First 2 hours (IV).

(iv) If urine flow has been established (lml/minute is considered adequate), give 40-60 milliequivalents of KC1 per liter of IV fluid or more if necessary.

(v) Repeat insulin if necessary. If the blood sugar has risen, give double the initial dose; if the blood sugar has not changed, give 1.5 times the initial dose; if there has been a reasonable drop, (e.g., from 800 to 600mg/100ml) give insulin as repeat $\frac{\text{blood sugar}}{10}$ units; if there has been a sudden drop in blood sugar (e.g., to less than 300mg/100ml), give no further insulin. Doses are still half IV and half IM. If constant infusion method is being employed, an additional IV bolus and increased infusion rate may be necessary, depending on the response.

Second 4 hours:

(i) Repeat biochemistry 1½-2 hours after previous sample and again during this 4-hour period, if indicated. (e.g., blood sugar > 300mg/100ml).

(ii) If the blood sugar has fallen to less than 250 mg/100ml, change to IV glucose-saline, 5 per cent in ¼ N (or more glucose if necessary) giving 300-500 mls hourly.

(iii) Continue the IV KC1 at 40-60 milliequivalents per liter of IV fluid, or more, depending on the serum potassium and other parameters.

(iv) Repeat insulin along the above lines, or continue infusion.

(v) Give ice chips and then oral fluids as tolerated.

Next 16 hours:

(i) Repeat biochemistry 3½-4 hours after previous sample and subsequently, if necessary.

(ii) Continue IV glucose-saline, 500 mls each 2-4 hours with KC1, 40-60 milliequivalents per liter of IV fluid. At this point, the osmotic diuresis should be decreasing and appropriate oliguria may be noted. Beware of hypoglycemia during recovery from acidosis.

(iii) Give subcutaneous insulin every 4 hours by the $\frac{\text{blood sugar}}{10}$ rule if greater than 400 mg/100ml; otherwise, according to urinary sugars using the 2 drop method[4].

For patients with known diabetes, previously under fair control, suggested doses of 1½-2 times total daily insulin requirements divided by 6 may be taken as amounts of regular insulin to be given on a 4-hourly basis. Use of this calculated dose and typical insulin doses for new diabetics based on urine tests are presented in the following scale:

Urine test	Known Diabetic	New Diabetic
3-5% Glycosuria mod.-lge Acetone	Calculated Dose	24-28 units
3-5% Glycosuria neg.-sm Acetone	Calculated dose X 3/4	16-24 units
2% Glycosuria disregarding Acetone	Calculated dose X 1/2	8-16 units

The above scale may need to be modified according to response and must not replace

continued clinical monitoring of the patient. With continuous infusion method, rate may be modified by the above scale.

(iv) When the patient is fully controlled, conscious, and taking adequate oral fluids, discontinue intravenous therapy and remove urinary catheter and/or nasogastric tube.

(v) Remember to look for any precipitating cause of the ketosis, particularly infection, and treat appropriately.

Next morning:

(i) If the patient is tolerating adequate oral intake, administer the patient's usual mixture of insulin (e.g., NPH + regular) and supplement as necessary with rapidly-acting insulin. In newly diagnosed diabetics, treatment may be empirically started at a dose of 20-40 units of intermediate-acting insulin[3].

(ii) Provide adequate caloric intake for the glycogen-depleted patient during his hospital stay. Between-meal and evening snacks are necessary to prevent hypoglycemia.

(iii) Commence patient and family instruction, or review previous knowledge and evaluate factors affecting compliance.

(iv) Formulate a comprehensive follow-up and continuing care program prior to discharge.

Complications

The usual causes of a fatal outcome in diabetic ketoacidosis, such as myocardial infarction, overwhelming sepsis, or acute pancreatitis, are rare in adolescents. The two complications unrelated to underlying illness, namely shock and cerebral edema, assume far greater importance. Shock will commonly be due to severe hypovolemia and usually responds to isotonic saline, blood, or plasma volume expanders. The extremely rare syndrome of late shock, which may occur several hours after the commencement of therapy, is a serious and often fatal complication. The occurrence of irreversible, fatal cerebral edema represents a real hazard, although the overall incidence remains very low. While overly rapid restoration of blood glucose concentration and pH to normal has been suggested as a pathogenic factor, in some cases, at least, this has not been so. No documented cases of succesful treatment have been recorded although spontaneous reversal has been noted[3].

Other complications which may be encountered during therapy include hypoglycemia, hypokalemia, re-occurrence of ketoacidosis, alkalosis and sudden death[24]. Of these, the first four are not infrequent and emphasize the need for a closely monitored course in every case, lest they contribute to the final complication—death.

One should not forget that the sudden reduction of an adolescent to a state of complete dependence, as in this instance of acute illness, dramatically highlights the fact of his being vulnerable and thus different from his peers. This situation may create or exacerbate serious concerns about his future, and also precipitate the psychological responses discussed previously (Table 4)[9].

Follow-up and Preventive Care

Control of diabetes involves the achievement of certain biochemical objectives, not always an easy accomplishment with adolescents. For this group, of equal importance are general or person-oriented goals which recognize the special needs of these youngsters and aim to provide for optimal physical, mental, and emotional health. Encouraging adolescent patients to take responsibility for themselves and their medical care is an important example.

Diabetic ketoacidosis occurs in some patients more frequently and severely than in others. As a result of poor understanding of the disease, a patient may fail to properly regulate his insulin dosage. Due to illness, for example, he may not eat and reason that he does not require his daily insulin. Alternatively, as a result of psychological factors alluded to previously, the adolescent patient may simply not take his insulin. Through comprehensive outpatient care, continuing education, and good communication

between patient and doctor at all times, we would hope to reduce the frequency of ketoacidotic episodes.

The treatment of an adolescent with any chronic or handicapping disease provides difficulties, but the problem of dealing with those who have diabetes must surely be one of the most demanding and challenging. Less optimal control and a tendency to ketoacidosis are characteristic of adolescents with juvenile diabetes (Table 1). Important precipitating factors, diagnostic features, and complications of ketoacidosis have been discussed with particular reference to psychosocial stresses and psychological coping mechanisms.

This paper has been presented primarily as a guide to the management of the acute episode of ketoacidosis. There is no single correct way to treat this condition; in fact, new and better methods are evolving. But one must not forget that this potentially fatal complication constitutes a medical emergency in which early diagnosis and the smooth restoration of the patient to his usual metabolic state are crucial. The idea of a sequential plan of treatment is not unique[17]; essentially, it is a chronologic expression of therapeutic principles with which most authorities are in agreement. Following guidelines such as these can allay anxiety and lessen confusion for the physician. But most importantly, this approach enables the institution of a safe and closely monitored course of treatment, thus making sub-optimal therapy with possible life-threatening complications less likely. Finally, through this presentation, we would hope to encourage a more understanding and comprehensive approach to the overall management of these particular adolescents.

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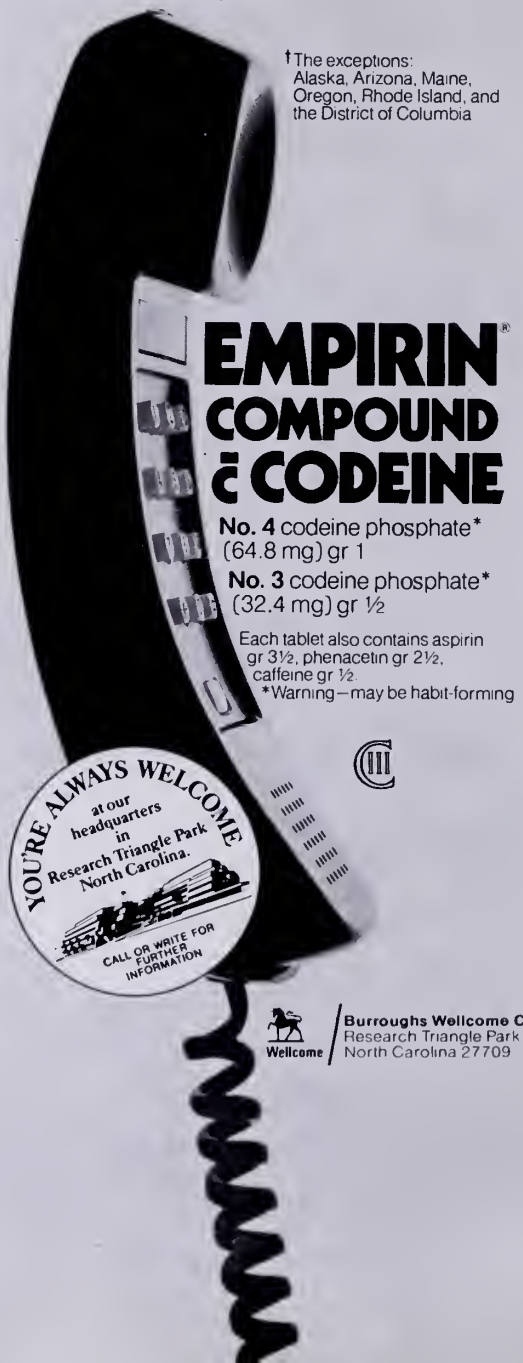
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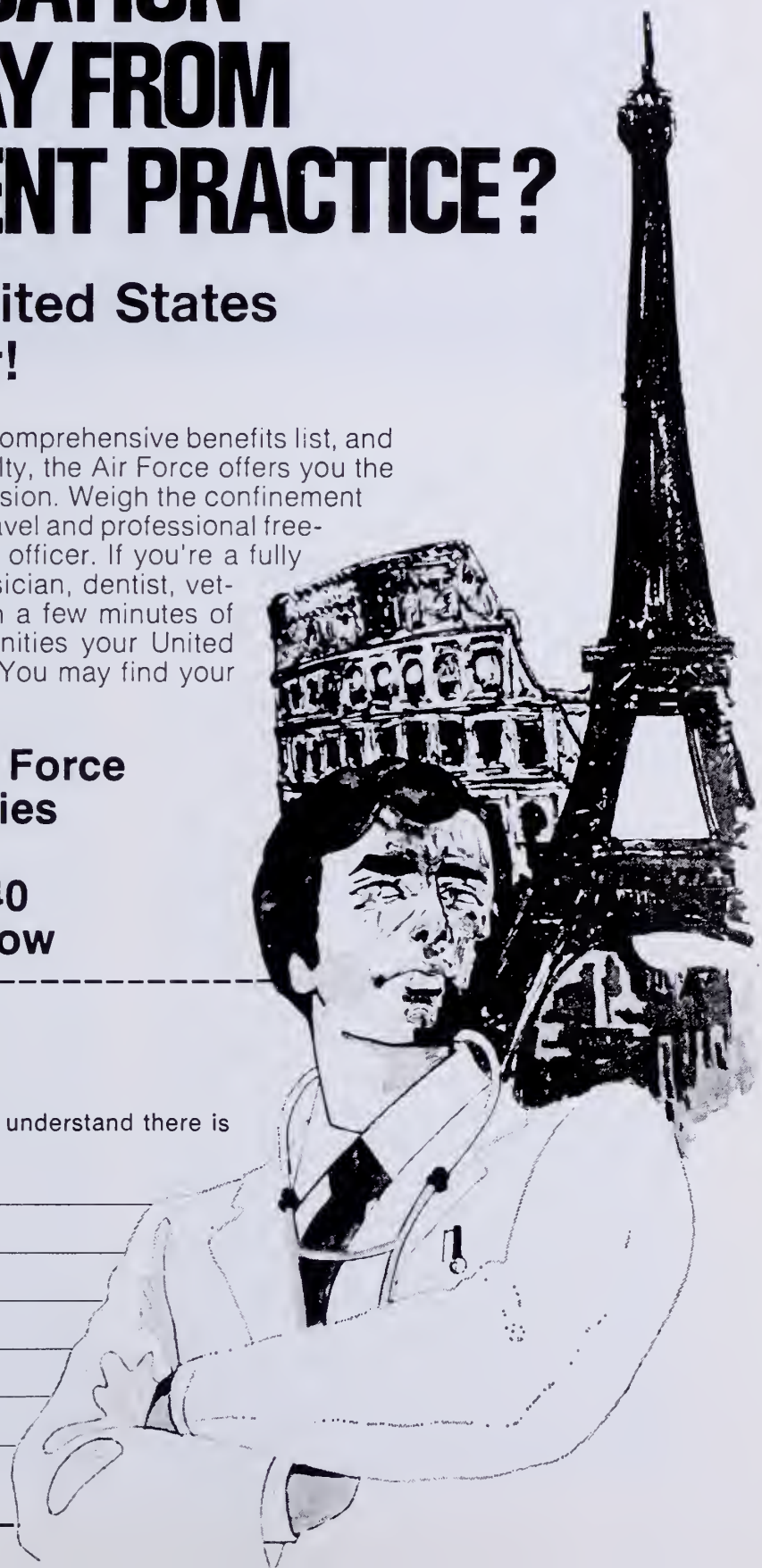
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The Case For Family Practice As The Best Model Of Primary Care For The U. S.

G. Gayle Stephens, M. D., Dean
School of Primary Medical Care
University of Alabama in Huntsville
Huntsville, Alabama

EDITOR'S NOTE: *Read at Society of Teachers of Family Medicine Scientific Meeting, Chicago, Illinois, November 15, 1974.*

Everyone seems to be convinced that primary medical care is a major problem, but there is little agreement about who should provide it and how providers should be educated for it. There are three major groups of contenders with proposed solutions: (1) family physicians, (2) internists and pediatricians, and (3) a heterogenous group of nurses and physician assistants (new health practitioners). Each of these groups feels peculiarly qualified to deliver primary medical care and each implies a model for delivery and a model for educational preparation. Each group has its supporters and promoters. Organized medicine has tended to promote family practice, the AAMC seems to favor the internists-pediatricians, and the Robert Wood Johnson Foundation, which is heavily committed to primary care, is on the side of the "new health practitioner". The federal government has given token support to all three and is asking for leadership as to where more federal dollars should be placed.

One has the feeling that a decision of far reaching importance is being made on behalf of the citizens of the U. S. The stakes are high in terms of cost, quality and accessibility of health care for present and future generations and a genuine debate on a nation-wide scale is urgently necessary.

In this spirit, I would like to examine certain assumptions relevant to the debate and to argue that the family physician as currently understood by family practice educators is the best model around which primary care delivery can be organized.

For the purpose of this discussion, I propose a definition of primary medical care that begins with Alpert and Charney's[1] recently published monograph. They listed three defining characteristics: (a) first contact, (b) longitudinal or continuing responsibility, (c) integration of health services. To these three,

I wish to add two more: (d) primary care is personal care and, (e) practice management.

It is apparent from this definition that primary care does not encompass all the professional activity of family physicians who also provide a good deal of secondary care, but family physicians currently make a greater commitment of time and energy to primary care than other categories of clinicians.

My arguments are as follows:

1. Primary care requires the clinical skills of a physician.

Why do people seek health care? What are the needs to be met? McWhinney[2] has stated it as well as anyone. There are large numbers of acute, self-limited conditions, chronic conditions, early, vague and undifferentiated conditions and conditions associated with significant psycho-social factors. In addition, there is a small, but important minority of persons with diagnosable and treatable life-threatening diseases who are intermingled among McWhinney's categories. White's[3] data suggest that this group does not exceed 3.5-4.0 per cent (9/250 visits). In addition to these more or less symptomatic persons, there are significant numbers of well persons (20-30 per cent of visits) who require primary health services for purposes of periodic examination, surveillance or administrative examinations.

What clinical skills at what level of competence are required to respond to these needs and conditions? There is a tradition in medicine which takes a low view of the clinical activities that occur in the outpatient clinic setting. The picture of overwhelming numbers of poor patients with confusing, bizarre or "unworthy" complaints and unmanageable problems is indelibly etched in the memories of generations of physicians. In the face of this, what else could one do, but try to pick out those few with interesting organic diseases, admit them to the hospital where good, clean, intellectually gratifying, scientific medicine could be practiced? It is no wonder that many physicians seem to be willing to abandon the clinic in favor of the hospital.

It is my view that physicians *must not* abandon it. While it is true that a great deal of help can be obtained from planners, managers and technical assistants in reorganizing the outpatient clinic, the essential nature of the activity is far more *professional* than *technical*. What is required are:

(a) highly developed communicative and interviewing skills,

(b) accurate observational skills,

(c) appropriate and economic use of laboratory and radiologic services,

(d) greater use of consultation than referral,

(e) discriminating clinical judgment, and

(f) the emphathic use of the self as a therapeutic agent.

All these skills qualify for what historically has been identified as professional behavior, i.e., behavior characterized by breadth and depth of knowing, by self-knowledge and self-discipline, by acceptance of responsibility, by autonomy and by tolerance for ambiguity and relativity.

Feinstein[1] has identified the scientific foundations for clinical medicine as including not only biomedical technology, but also knowledge about: (a) observer variability, (b) criteria for interpreting primary data, (c) prognosis, (d) compliance, (e) effect of co-existing diseases, and (f) concepts of normality.

Who than the physician is better qualified to practice in the primary care setting? Can society afford to allow the physician to become disengaged from primary care or to become uninvolved with the patient's earliest experiences of ill health? Who is to share with the patient the anxiety, the suffering, the uncertainty and the threat of illness? It seems clear that the most qualified health professional should stand at the front door of the health care system—listening, talking, evaluating, supporting and treating the pa-

tient and managing the system on his behalf. To provide less indicates a serious misunderstanding of the professional task.

2. The Primary Care Physician should be a generalist.

If it is agreed that primary care should be organized around the physician as the central figure, the next question is, What kind of physician? My answer is that the physician should be a generalist of considerable breadth. Primary care must allow unselected patients with unselected problems to be received and helped effectively, efficiently and economically. The minimum requirements for the physician would be the following:

(a) The clinical expertise of the physician should be appropriate to the clinical problems of the patient to be served, i.e., service should be congruent with epidemiology.

(b) Definitive treatment of the most common conditions should be provided without referral to another physician. Referral should be based on clinical indications, not on an arbitrary division of labor based on specialty.

(c) The physician should be able to evaluate the appropriateness and the quality of a wide range of consulting services, and should be qualified to negotiate as a peer with consultants.

At the present time, the family physician most nearly fulfills these desiderata. He (She) treats patients of any age and either sex and is capable of definitive management of the majority of problems presented. This includes medical and pediatric conditions, gynecological problems, minor surgery, trauma and common emergencies and common psychiatric conditions. He (She) is capable of assisting in major surgery, delivering babies, serving as an athletic team physician, supervising a school health program, supervising a nursing home or serving as a counselor to local government regarding community health problems.

Family physicians, to a greater extent than other categories of physicians, are "interchangeable" in that they can cover and take calls for each other. This is an important attribute, especially in smaller communities and rural areas. It has been proposed that groups of internists, pediatricians and obstetricians could provide primary care, but the problem of night and weekend call in such a group remains unresolved.

3. It is logistically possible, academically legitimate and economically feasible to train enough family physicians for U. S. primary care.

The growth of family practice education in the U. S. since 1967 is an unprecedented phenomenon in American medicine. No one could have predicted the energy and enthusiasm of the movement. There are 219 approved residencies with 2,650 residents and 70 per cent of the nation's medical schools have academic units in Family Medicine. There is evidence that 20 per cent of graduating medical school seniors listed at least one family practice residency in the NIRMP for 1974. Graham[5] has calculated that 1974 will be the first year since 1935 in which there will be more family physicians in the U. S. at the end of the year than there was at the beginning. With this interest in and accomplishments of family practice education, the general practitioners/family physicians of the country constitute the most appropriate base of practitioners for primary care. They constitute more than 20 per cent of all practicing physicians in the U. S. and they are distributed better geographically than any other category of physicians.

Family physician educators are committed to academic programs of quality and competence which will qualify a physician for practice. There is an appropriate emphasis on biomedical technology, but also a much needed emphasis on behavioral medicine, community medicine and managerial skills. Family physicians are aware of the benefits of research in molecular biology, but they also know that the human organism as a whole in its personal and social relationships must be a subject of the medical curriculum.

Conclusion

It would be a serious mistake with consequences for generations if at this point in its history, the U. S. decided to allow its most highly educated health professionals to become identified mainly as technicians working in medical centers at some distance from the majority of the people. It would be an equally serious mistake to redesign our health care system around a non-M. D. assistant who provides the bulk of primary care, even if these assistants work under supervision of the technician-physician in the centers.

Patients need and deserve a personal doctor, broadly educated, technically competent and humanly trustworthy. Until recent years, most of the people had such a doctor. As a nation, we can do no less than to provide such a doctor for all the people. It is possible to do so if we do not fragment our efforts.

We would do well to heed the counsel of T. F. Fox[6], who in a 1961 address stated:

> "In planning your development, you may be tempted to follow the national genius and put all your money on technology. But, even in these United States, you have a population which is backward in that it consists of human beings with a long racial experience of life in circumstances quite different from those of Lower Manhattan. If people were ever industrial robots, they might need no more than technological medicine. But actually they are *not* (and I reckon never will be); and even in the most highly developed parts of the world they still need personal medicine, too.
>
> "It is because they are aware of this that older people look back wistfully to the horse and buggy doctor. I know the horse has died; and the buggy has fallen to bits. But we still have the *doctor*. And, adapted to modern conditions, he could often, if he wished, be the patient's own doctor—and much the more useful for that."

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ession, or with suicidal tendencies.
Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA · 1873 ·

PRESIDENT'S PAGE

J. GARBER GALBRAITH, M.D., PRESIDENT



The President Bids Farewell

This is my last opportunity to visit with the membership of MASA under this caption. This past year has been a stimulating and challenging time as your president, and I want to thank each and every one of you for the honor and privilege of serving in this office. A summary of this year's activities is included in my message to the Association at the Annual Session. Here, I simply want to point out our most pressing problems needing action now. Foremost has to be the medical liability problem. This has reached crisis proportions in many states, so it is imperative that we seek legislative changes to improve the liability insurance climate in Alabama. Otherwise, we will surely be in the same crisis situation now existing in States where the rates are literally astronomical or where coverage, at least for some individuals, is simply not available at any price.

Several factors are favorable for passage of health legislation in this area. Public sentiment is generally favorable and it is realized that in the final analysis it is the patients who must bear this additional cost if medical care is to be available. Elements in the Legislature and the Bar Association are interested and supportive of our efforts, although the Plaintiff's attorneys will undoubtedly contest any proposed legislation by our Association.

Your Board of Censors and Legislative Committee have come up with some very helpful bills to improve the liability climate in Alabama, including such factors as limits of liability (similar to Workmen's Compensation) and limits on the contingency fee scale for the Plaintiff's attorneys. Such proposals are sure to elicit vocal opposition from certain parties, but should be strongly supported in the interest of improved liability management and reduced cost of medical care. I hereby call on each member of this Association to get behind our efforts with this legislation and to work with your local legislative membership toward support for these bills. This matter is urgent and we must not fail.

Additionally, many of our hospitals are having their liability insurance cancelled, and we must do all we can to support them in this matter also.

In closing, I want to wish my successor, Dr. Vernon Stabler, Sr., a happy and successful year ahead. He needs the whole-hearted support of every one of us if our Association is to continue its excellent record of accomplishment in providing health care to all the people of Alabama.



114th Annual Session
of the

MEDICAL ASSOCIATION OF THE STATE OF ALABAMA

April 17 - 19, 1975
Parliament House
Birmingham, Alabama

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WARNINGS: Tetracycline usage during tooth development (last half of pregnancy to eight years) may cause permanent tooth discoloration (yellow-gray-brown), which is more common during long-term use but has occurred after repeated short-term courses. Enamel hypoplasia has also been reported. **Tetracyclines should not be used in this age group unless other drugs are not likely to be effective or are contraindicated.**
Usage in pregnancy. (See above **WARNINGS** about use during tooth development.)
Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.
Usage in newborns, infants, and children. (See above **WARNINGS** about use during tooth development.)
All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrease in fibula growth rate observed in prematures given oral tetracycline 25 mg/kg every 6 hours was reversible when drug was discontinued.
Tetracyclines are present in milk of lactating women taking tetracyclines.
To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The anti-anabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.
Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.
PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.
In venereal disease, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.
Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.
In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).
Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.
Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.
ADVERSE REACTIONS: Gastrointestinal (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in the anogenital region.
Skin: maculopapular and erythematous rashes; exfoliative dermatitis (uncommon). Photosensitivity is discussed above (See **WARNINGS**).
Renal toxicity: rise in BUN, apparently dose related (See **WARNINGS**).
Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.
Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.
Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.
Over prolonged periods, tetracyclines have been reported to produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.
USUAL DOSAGE: Adults—600 mg daily, divided into two or four equally spaced doses. More severe infections: an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. Gonorrhea: In uncomplicated gonorrhea, when penicillin is contraindicated, 'Rondomycin' (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule: 900 mg initially, followed by 300 mg q.i.d. for a total of 5.4 grams.
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WOMAN'S AUXILIARY

EVELYN O'BRIEN, PRESIDENT



Why Should I Belong To The AMA?

While visiting the Auxiliary headquarters in Chicago during the past year, I was impressed by how all physicians of the United States benefit from the activities of the AMA. I discovered that the Woman's Auxiliary depends on the AMA for legal and financial guidance. The structure and activity of the American Medical Association are so planned as to make it the champion of the private practice of medicine and to resist attempts to destroy the fee-for-service concept and other efforts to interject third parties between the physician and his patient.

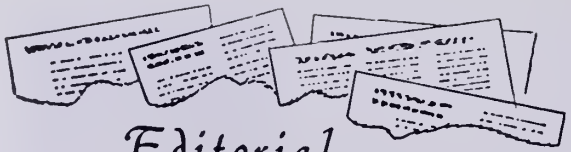
This cannot be done by simply reacting negatively to demands and efforts of medicine's adversaries. It takes positive counteraction and that is what the AMA has been trying to do in our troubled times.

The AMA has been active in promoting legislation that is in the best interest of the people and of the profession. It has opposed bad legislation which would have had a deleterious effect on the quality, availability and cost of medical, scientific and ethical areas of medicine. Twenty years ago, the AMA began with others to correct the inequities in our tax structure which did not permit self-employed individuals to set aside tax free money for retirement as corporations could. After eight years of AMA support, the Self-Employment Individual Tax Retirement Act was passed by Congress. For the last ten years, the AMA has been working to increase the amount and percentage of physicians' incomes to be deferred and this has finally been passed. The AMA was the successful leader in opposing Phase IV economic controls on physicians and hospitals and objecting to the extension of the Economic Stabilization Act.

The economic facts of life can be the hardest to face, but they must be dealt with or they will overwhelm us. In addition, the AMA has provided the leadership which has kept United States medicine preeminent in the world. We all profit from the confidence Americans have in their hospitals. Much of the credit goes to the AMA Joint Commission on Accreditation of Hospitals. The question of licensure of foreign medical graduates who want to practice in the United States is one that is faced by the one organization qualified to represent American medicine, the AMA. The number of foreign applicants has been increasing and in some years approaches the number of American graduates. All physicians want medical schools and graduate medical education programs kept to a uniform standard of excellence and this can only be done by a centralized organization representing all facets of American medicine. The AMA Coordinating Council on Medical Education and the AMA Medical Education Division are full-time efforts in these fields.

From what I have seen of the AMA's activities, I believe each member of the medical profession (and his wife) benefits daily from its efforts. Some of medicine's opponents would like to "divide and conquer", but in "unity there is strength."

PRESIDENT—Mrs. Donald J. O'Brien/PRESIDENT-ELECT—Mrs. William Hughes/FIRST VICE-PRESIDENT—Mrs. J. E. Dunn, Jr./NORTHWEST DISTRICT VICE-PRESIDENT—Mrs. Charles Howell/NORTHEAST DISTRICT VICE-PRESIDENT—Mrs. Roland Murphree/SOUTHWEST DISTRICT VICE-PRESIDENT—Mrs. Charles Weaver/SOUTHEAST DISTRICT VICE-PRESIDENT—Mrs. Robert Foy/WAMASA EDITOR—Mrs. William L. Smith.



Editorial COMMENT

Guest Editorial

A Man For All Seasons

"He who learns to mold men's desires can stir them to great deeds and thus move the world."

—Author Unknown

During MASA's 114th Annual Session in Birmingham, April 17-19, Dr. J. Garber Galbraith will complete his tenure as President of MASA. Dr. Galbraith has served with distinction and his steady guidance has been like that of a shining beacon through the night, giving direction and purpose to programs of the Association.

Capable, active and dedicated only partially describe the leadership which he has given to the Association. As new concepts in the health care delivery system have been initiated in recent years, the demand has been increasingly greater that medical leaders be stronger than ever before. Such a leader has been Dr. Galbraith, whose honors are too numerous to list individually.

It goes without saying that MASA has benefited during his presidency. He is a man who is proud of his profession and dedicated to the advancement and improvement of medical education. He is a family man and a civic leader of his community. He is truly-a man for all seasons.

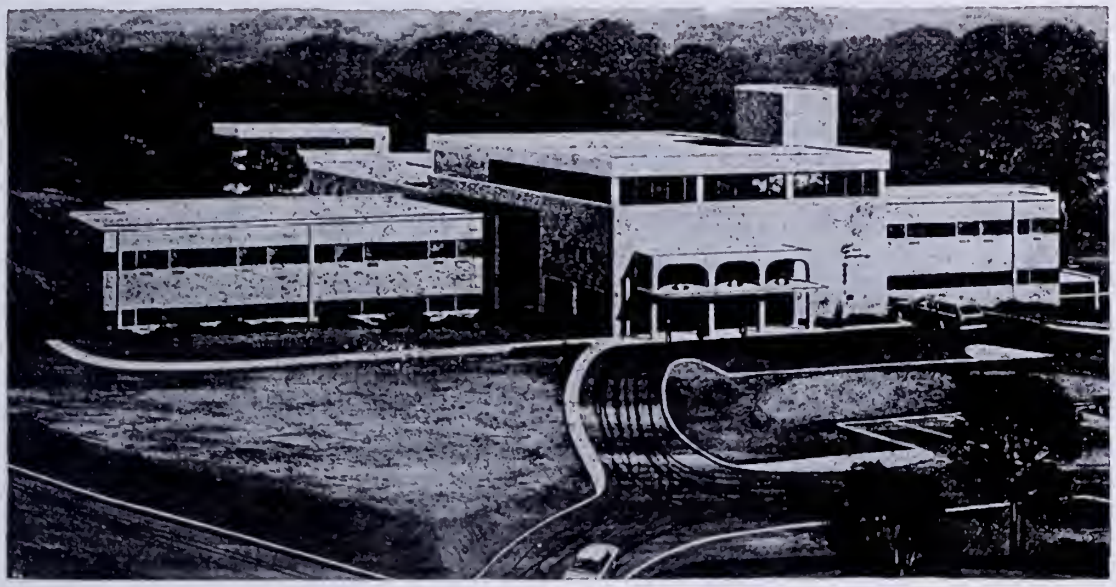
1975 Annual Session Begins In The Magic City

Undoubtedly, magic will be in the air. The Birmingham Festival of Arts will exude a gala spirit on conventioneers and citizens alike. Renewed friendships and professional goodwill will draw physicians together during MASA's 114th Annual Session, April 17-19, in Birmingham—The Magic City of The South.

However, the business of medicine must take on an air of seriousness and determined resolve in order that goals may be accomplished and medical needs met for the good of all citizens of Alabama. The disturbing professional liability insurance crisis, the undetermined prospects of national health insurance, the d i r e c t i o n of the Professional Standards Review Organization Mechanism and the continued Governmental assault upon the individual physician and his p r a c t i c e combine to focus both State and National attention upon the Session and its accomplishments. The Association has sought to hear the voices of the rank and file membership as to what type of legislation is needed to combat these problems. As a result, carefully prepared bills will be introduced this year in the Alabama Legislature.

The progress of MASA's Continuing Medical Education P r o g r a m has continued at breakneck speed and as a capstone to its success, the AMA will send a site survey team to evaluate the Scientific Program on Friday, April 18. If the Program is found to be satisfactory, the Association will be accredited to plan and present its own medical education programs throughout Alabama.

The Annual Session belongs to the membership of the Association. It is designed to act as a cohesive instrument of physician unity, for in unity there is strength. Medical care cannot be pulled out of a magician's hat. It is the result of dedicated men and women working together with tireless energy to assess health care demands and to chart a Plan of Action in order to meet these needs.



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Medicine Is Worth All You Put Into It

Life has been good to Dr. Louise Branscomb. Her practice of Obstetrics and Gynecology in Birmingham has been as she says "a wonderful time in my life." After 45 years of devotion to medicine, Dr. Branscomb recently retired from her practice; but she describes her retirement as "the opening of the door to new challenges."

Dr. Branscomb entered medical school at Johns Hopkins University in 1924, following her graduation from Huntingdon College in Montgomery. She graduated from Hopkins in 1928 and then spent three years as an intern at the Women's Memorial Hospital and Franklin Square Hospital in Baltimore and the Philadelphia Women's Hospital.

In 1931, Dr. Branscomb arrived in Birmingham and opened her practice. During that first month, she collected a total of $4 and had to borrow money to help pay her rent. "I had a little difficulty in getting my practice started," she smiles, "not from the patients, but from their husbands. They said they didn't think a woman was strong enough, (to deliver babies) not realizing that skill rather than strength was the important thing."

Initially, she had trouble being accepted on the staff of the old Hillman Hospital, since there were no women on the staff at that time. Dr. Branscomb encountered further ups and downs in trying to establish herself in those earlier days. However, during a recent interview, she reflects upon those days as "wonderful and meaningful to me and a time when I developed life-long friendships."

To Dr. Branscomb, retirement is a time when she can begin to do those many things she has always wanted to do. "It is very demanding to practice medicine; and now that I have retired, I'm ready to go on to other things," she stated. Recently, she spent three weeks in Mainland China with a group of five other doctors visiting several of the medical institutions in that country. She describes the objective of her trip as an opportunity to gain first-hand information on the distribution of medical care in China. She spoke of the "barefoot doctors"—paramedics with some three to six months training—which are found in each hamlet and village. Serving as the backbone of their country, these paramedics number approximately two million.



Dr. Louise Branscomb

"The Chinese have quite a system of medical care established to meet the needs of the people," reports Dr. Branscomb. "From the 'barefoot doctors,' the next level is the polyclinics in some of the major villages, which leads to the fully equipped and professionally staffed hospitals in the cities."

Her interests also include her amazing hobby: rug hooking. A centuries-old craft, her interest in rug hooking began some 25 years ago. She does her own design work, as well as dyes her own material.

A member of MASA and the Jefferson County Medical Society, Dr. Branscomb is also a member of the College of Surgeons and has served as past president of the Birmingham OB-GYN Medical Association.

(Continued on Page 542)

1975 Physician Recruitment Conference Receives National Acclaim

"I have never seen anything quite like this. The approach is so unique. The Association should be extremely proud of this innovative undertaking," stated Gordon Fryer, Director of AMA's Physician Placement Service, during the recently MASA-sponsored second Physician Recruitment Conference. The Conference, termed a "national model" in physician recruitment, was held February 27, 1975, in Montgomery and was attended by more than 100 conferees, which included mayors, Chamber of Commerce officials and medical personnel from across Alabama.

Mr. Fryer's statements seemed to be an omen of things to come. Not only did State and local news media cover the event extensively, but MASA received requests from the MEDICAL WORLD NEWS and AMERICAN MEDICAL NEWS magazines for in-depth reports of the Conference. And more importantly, the success of the Conference was reflected in the comments and attitudes of those who had attended. It seemed as though a spark had been kindled in the minds of the recruiters to return to their communities and review with new vigor community-supported physician recruitment endeavors.



President-Elect of MASA, Dr. E. V. Stabler, Sr., of Greenville, issued a welcome to the Conferees and spoke of MASA's objectives in its presentation of a Recruitment Conference.

Like the initial 1974 one-day conference, its purpose was to assist Alabama communities in their efforts to overcome medical manpower shortages that may exist, as well as to confront the complex problem of physician maldistribution. The only one of its kind in the United States, the Conference was designed primarily to provide the attending recruiters with the "nuts and bolts" of physician recruitment, as well as basic "how to" information. In essence, it affords Alabama's community leadership an opportunity to combine with MASA in affecting a productive





Over 100 community and medical leaders from across Alabama gathered to hear outstanding speakers on physician recruitment, notable among these being (inset) Dr. William D. Lazenby, of Opelika.

plan of action in physician recruitment, which hopefully will produce the desired influx or needed resettlement of physicians throughout Alabama.

Planned and organized by MASA's Education Department, the 1975 Conference featured a program of well-qualified speakers in the area of physician recruitment and placement. Dr. William D. Lazenby, of Opelika, served as the keynote speaker. Dr. Lazenby has already acquired somewhat of a national reputation as an expert on physician recruitment due to his many speaking engagements throughout the year. The particular thrust of his presentation concerned itself with answering the question: "how do we recruit physicians?"

"Be a walking Chamber of Commerce as you represent your community to prospective physicians," urged Dr. Lazenby. "You need to know everything about your community—schools, hospitals, climate, economic situation, basic industries. What about recreational features; is there good hunting and fishing and is there a country club? Go all out to make a good impression on your initial contact with a prospective physician," he said.

Following Dr. Lazenby on the program was Dr. James A. Pittman, Dean, UAB System Medical Education Program. Dr. Pittman described the medical educational advances being made in Alabama with particular emphasis on the expansion of the two medical schools in Mobile and Birmingham, respectively.

The Medical Center was represented by Dr. Margaret S. Klapper, Director, Office of Health Extension and Public Service. Dr. Klapper informed the conferees as to the recent scientific and technological in-roads being made in Alabama, particularly with the programs offered by the Medical Center and of their immediate use by any medical professional in the State. Other speakers included Robert Schollard, representing the Public Health Service; Fred Crawford, Director, Alabama Health Careers Council; Caroline Cavanaugh, Executive Secretary of Andalusia Area Chamber of Commerce and Mr. Fryer.

MASA is proud not only of the success of this Conference, but also of its on-going Physician Placement Service. Both have combined to give MASA excellent service and suggestions to those communities who are seeking a physician. The success cannot be counted in mere numbers of those who have been placed, but by the contributions these physicians have made to their communities.

(Continued from Page 540)

However, Dr. Branscomb is not looking back. "Medicine is a very jealous mistress," she advises. "When you are helping someone who is ill regain good health, it is a serious responsibility, but it is worth all that you put into it. Life has been good to me."

Adam and Eve had many advantages, but the principle one was that they escaped teething.

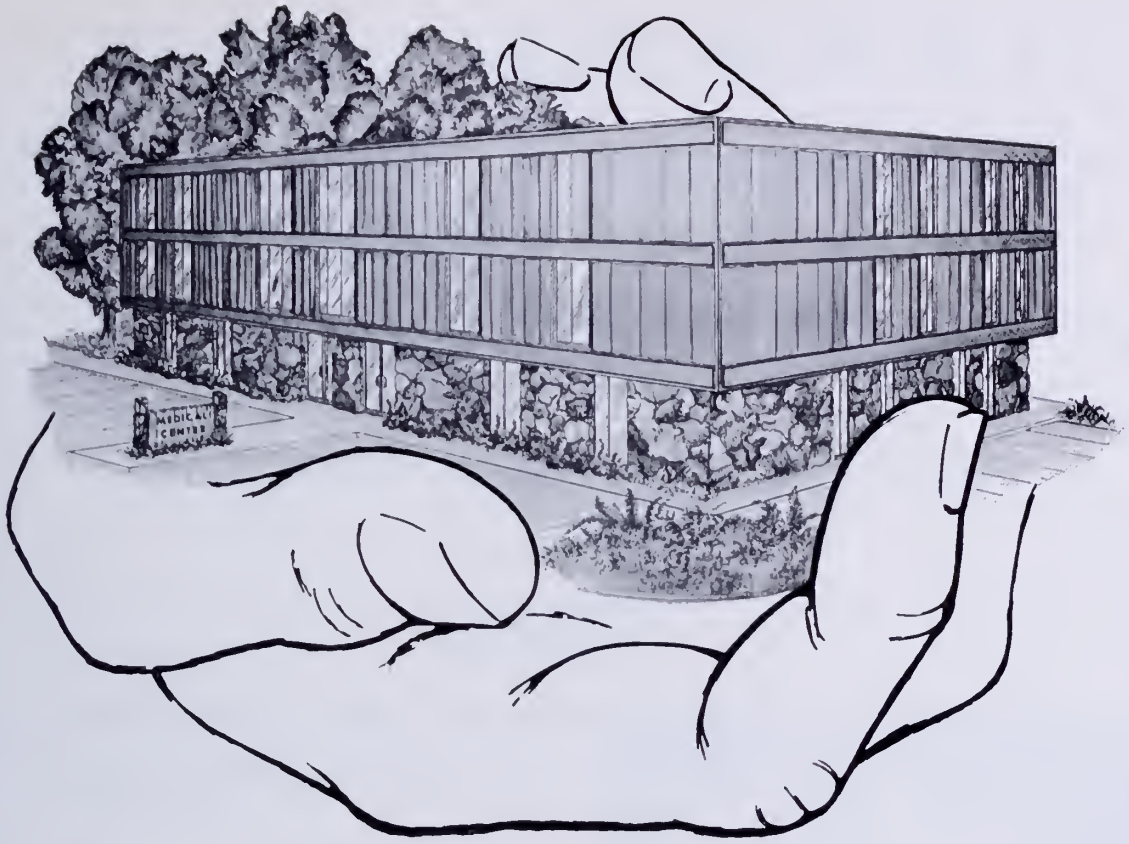
Samuel L. Clemens

Violent exercise is like a cold bath. You think it does you good because you feel better when you stop it.

Robert Quillen

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Electronystagmography in Vestibular Testing

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What is electronystagmography? How is it recorded? Is it a clinical tool to locate the site of origin of vertigo?

Electronystagmography is the technique of recording nystagmus with the eyes opened or closed. Nystagmus is defined as a regular alternating eye movement that usually has a slow and a fast component. It may be horizontal, vertical, oblique or rotary. E. N. G. (electronystagmography) is a graphic record by electrical means of ocular position and movements with D. C. equipment. The method measures changes in the position of the electrical field which surrounds the eye. These field changes are produced by the natural potential difference existing between the cornea and the retina, the cornea being positive in relation to the retina. With the E. N. G. we can accurately measure the speed of the slow component, a more valuable parameter than duration. (Photograph 1)



Photograph 1

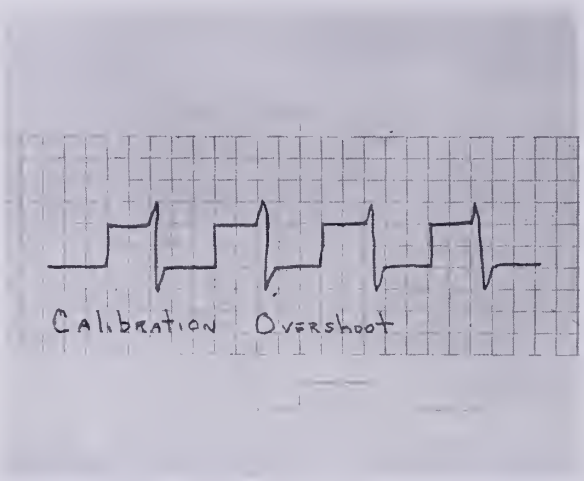
Electrode Placement

During the past decade the nystagmograph advanced from an experimental gadget to an indispensable clinical diagnostic tool. The clinician depends on recordings of nystagmus as much as on the audiometric findings to achieve up-to-date vestibular function evaluation and neuro-otologic diagnosis.

The symptom of vertigo presents a most challenging diagnostic problem. Its analysis must start with the identification of the symptom with an exhaustive history of the initial attack and with a thorough system review. After a thorough ear, nose and throat examination, one should procede to the vascular and neurologic systems. This is followed by indicated radiographic studies. An orderly sequence of vestibular study is then outlined to help secure the diagnosis.

Electronystagmography consists of the following tests: calibration, pursuit (sinusoidal tracking) mechanism, gaze, optokinetic, spontaneous, positional, Dix Hallpike test and bithermal calorics.

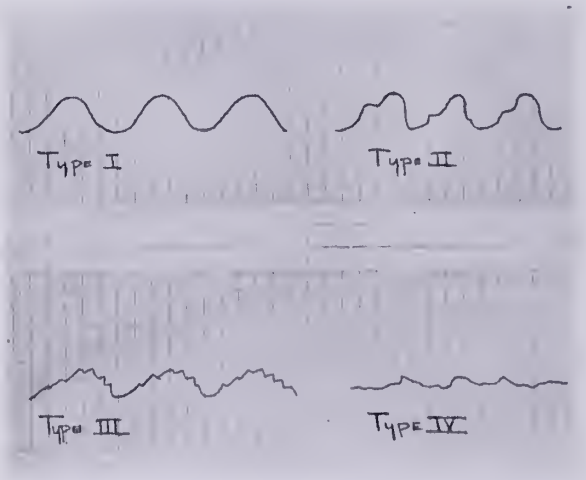
Calibration: (Ocular Dysmetria Test) The recording of the patient's ability to move the eyes smoothly between two fixed points in both horizontal and vertical planes. Overshooting the target is a sign of C. N. S. disorder. (Photograph 2)



Photograph 2

Calibration Overshoot

Pursuit mechanism: A tracking test that records the vestibular system's ability to follow a simple to and fro movement such as a pendulum. An abnormal curve can indicate a vascular, degenerative or tumoral lesion of the central nervous system, a cerebellar lesion or a brain stem infarction depending on the type of tracing recorded. (Photograph 3)

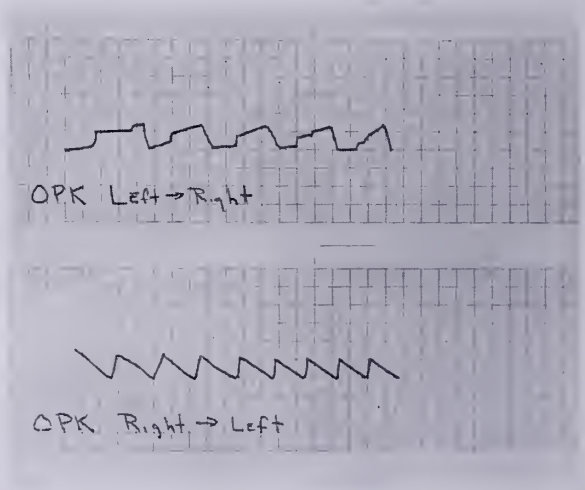


Photograph 3

Types of Tracing Obtained on The Pursuit Test

Gaze: Nystagmus that is non-fatiguing and occurs at a point 20° or 30° from center is pathological and usually central in origin. This test is done in both the horizontal and vertical planes. Vertical nystagmus with the fast phase upward is brain stem in origin.

Optokinetic: This test is done with a motor driven striped drum, again in horizontal and vertical planes. Optokinesis is a reflex response to the movement of images. Optokinetic asymmetry with normal gaze suggests a cerebral hemisphere lesion. (Photograph 4)



Photograph 4

Types of Tracing Obtained on Optokinetic Testing

Spontaneous: Nystagmus occurs with the patient sitting, the head in the midline and eyes closed or open. This is an abnormal condition, but in itself is non-localizing. When present, indicates either central or peripheral cause.

Positional: Nystagmus (non-fatiguable) with the head in various positions. This type is usually peripheral but depends on certain findings on graph as latency, fatiguability, etc. The head-neck relationship can be tested to diagnose nystagmus of cervical origin as that present in whiplash injury or impaired vascular flow.

By far, most tested have abnormal findings in positional testing, such as postural vascular vertigo in the aged, infectious disease of the labyrinth or hydrops of labyrinth. Po-

sitional nystagmus is a valuable physical finding in vestibular diagnosis.

Dix Hallpike Test: Present with Dix Hallpike manuever, usually rotary, but may be predominately vertical. A classical response is diagnostic of benign paraxsymal nystagmus.

Bithermal calorics: Irrigation, with 300 cc. of water at 30° and 44° C in each ear canal for 30 seconds. Record for four minutes. A unilateral weakness, bilateral weakness, directional preponderance or failure of fixation suppression may be present.

Usual E. N. G. findings in specific disorders

1. Meniere's disorder—30 per cent caloric unilateral weakness
   20 per cent directional preponderance without unilateral weakness
   30 per cent spontaneous or positional nystagmus with normal caloric test
   20 per cent normal E. N. G.

2. VIIIth nerve tumor—Small—85 per cent caloric unilateral weakness. Spontaneous or positional nystagmus is usually absent or very weak. Large-Central E. N. G. abnormalities appear as tumor increases in size and begins to impinge upon brain stem or cerebellar structures.

3. Viral labyrinthitis—Caloric unilateral weakness with intense spontaneous nystagmus away from the weak side.

4. Ototoxic lesions-bilateral caloric weakness.

5. Head trauma-temporal bone fracture-caloric unilateral weakness. Labyrinthine concussion without temporal bone fracture-15 per cent have positive Dix Hallpike Test. Caloric usually normal.

ENG IN LESION LOCALIZATION

Calibration	Peripheral	Central	Nonspecific
Spontaneous Nystagmus	Vestibular type over 7°/sec.	Nonvestibular type without ocular abnormalities Vertical spontaneous nystagmus	
Gaze Nystagmus	Unilateral with intense vestibular spontaneous nystagmus	Unilateral without vestibular spontaneous nystagmus or Bilateral asymmetrical	
Optokinetic	Asymmetry with intense vestibular spontaneous nystagmus	Asymmetry without vestibular spontaneous nystagmus	
Pendular Tracking		Types II(?),III and IV suggest central lesion	
Hallpike Test	Typical response		
Positional Tests			All abnormal responses
Bithermal Calorics	Unilateral weakness Bilateral Weakness	Impaired fixation suppression and/or Dysrhythmia	Directional preponderance

Table 1

E.N.G. Test Interpretations

6. Whiplash or basilar artery insufficiency-may have either spontaneous or positional nystagmus with nystagmus more intense in the neck twisted positions.

7. Benign paroxysmal positional vertigo-positive Dix Hallpike procedure.

8. "Motion sickness"-abnormal optokinetic.

9. Vestibular neuronitis-large caloric unilateral weakness with intense spontaneous away from weak side.

10. Sudden deafness—50 per cent have caloric unilateral weakness on side of hearing loss.

11. Posterior semi-circular canal pathology—Positive Dix Hallpike

12. Demylenating diseases-bilateral, unequal gaze nystagmus and optokinetic asymmetry. Failure of fixation suppression provides additional support for theory. Directional preponderance with no unilateral weakness.

Summary

E. N. G. is a valuable clinical tool in evaluating the vestibular system. Examining these recordings allows us to interpret them as normal or abnormal. The abnormal can then be further classified as central in origin or peripheral. The peripheral are further divided into right or left. With E. N. G., we can detect spontaneous and positional nystagmus with eyes closed which might go undetected with the eyes open because of fixation suppression. The slow phase of the nystagmoid beat can be measured accurately during caloric stimulation, giving us the most accurate known way of measuring peripheral vestibular response. Used in conjunction with the history, physical, audiological, radiologic and metabolic surveys, E. N. G. enables us to diagnose vertigeneous disorders more accurately, and therefore treat them more effectively.

Subarachnoid Cold Saline Therapy for Intractable Pain

Hamdi A. Erdemir, M.D., Malcolm D. Middleton, M.D.
Frederick R. Muths, M.D., and Guenter Corssen, M.D.*

Reports published in recent years have described the safety and effectiveness of subarachnoid injections of ice cold saline for the relief of severe chronic pain[1, 2, 3]. In general, such relief has been temporary, but repeatable in cases of persistent disease and may be permanent where the cold therapy has interrupted a neural "vicious cycle".[3]

Publications of successively larger series of which this is the latest, suggest a growing but not universal[9] acceptance of this technique. The procedure is itself so painful as to require anesthesia[1, 2, 3]. Spinal anesthesia with lidocaine before the cold saline injection renders the procedure painless, but ineffective[4]. Under light pentothal, anesthesia patients tend to move violently during injection of the cold saline[4], and later they note paresthesia in the legs and backache.

In the Pain Clinic at the University of Alabama Medical Center, our experience with the subarachnoid method indicates that ketamine may be the anesthetic agent of choice for this procedure. Results in 50 cases involving 66 cold saline injections confirmed the advantages noted in other types of surgery with ketamine anesthesia: ease of administration, unassisted maintenance of airway, no respiratory or cardiovascular depression, and potent analgesia for the 30 to

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60-minute painful period following the cold saline injection.

Clinical Details

The 50 patients were all suffering chronic intractable pain below the level of the cervical dermatomes. The pain was associated with cancer in 15 cases, causalgia or neuralgia in 23, and herpes zoster in four; in the remaining eight cases, the cause was unknow. All the patients had become resistant to the usual forms of treatment and had therefore been referred to the Pain Clinic.

Procedure

The patient is admitted to University Hospital for tests, overnight fasting and informed consent. Nembutal morphine and atropine are given one hour before the patient arrives in the operating room. A venous line is established, blood pressure and precordial sounds are monitored, and the patient is turned on to his side on the operating table. If the patient has a more painful side, we place this side down, although we have not observed any laterality in our results. An 18 guage spinal needle is inserted by a sterile technique into the 2nd and 3rd and 4th lumbar interspace, and cerebrospinal fluid (CSF) is slowly withdrawn. When the volume of CSF taken off reaches 30-35 ml., headache and discomfort usually occur. At this point, anesthesia is induced by the intravenous infusion of ketamine 1 mg/pound of body weight, and the operating table is tilted head down. The remainder of the aspiratable CSF is then withdrawn, bringing the total to 40 or 50 ml.

The cold saline (about -0.5° C) is injected as rapidly as possible through the 18-guage needle, in a volume equal to that of the CSF removed. Since the injection sometimes causes violent movements, the patient is held by assistants until this danger is past. Dilution of the cold saline by residual CSF in the spinal subarachnoid space is avoided by tilting the patient head-down. After the injection, the patient is turned onto his back and taken to the recovery room. The patient usually wakes within 10 or 15 minutes, and is returned to his room after vital signs have been stable for an hour. Sedatives or narcotics are given if necessary, but most patients report complete relief of pain during the recovery period.

To reduce the likelihood of spinal headache, the patient is kept supine for six hours and fluids are given both orally and intravenously. Usually the intravenous fluid consists of three liters of electrolyte solutions. Dramamine to prevent nausea is given in the amount of 50 mg. intramuscularly every six hours.

Patients remain in the hospital for 24 to 48 hours, to be observed for complications and degree of pain relief, and for repetition of therapy if indicated. At discharge, they are asked to return if pain reoccurs; long-term follow-up information is obtained by questionnaires mailed to the patients.

Results of Treatment

One hour after the cold saline injection, pain relief was rated good or excellent in 40 cases, or 80 per cent with less than 5 per cent complete failures. A systemic analgesic contribution is inferred, however, as some patients experienced the recurrence of pain a day later. The treatment was repeated up to a maximum of four times in those patients whose pain relief was adequate but temporary.

Headache occurred in 40 per cent of the 66 separate procedures, being rated severe in 10 per cent. The headache began on the first day, and unlike the typical post-spinal headache, it lasted only 24 hours. No relationship appeared between the volume of CSF removed and the incidence of headache, but the results indicated that any patient suffering headache after the first treatment will suffer a similar headache after any subsequent treatment.

Paresthesia in the legs occurred in two cases and lasted two days. Retention of urine was noted in one case, for one day only. Constipation occurring in one case was thought to be related to preoperative nar-

cotics. In one case, weakness of the legs which had been present for some time appeared to be increased by the cold saline injection. This patient had uterine cancer with vertebral metastases and a history of pathologic fractures.

In some weeks and months after treatment, 20 patients were lost to follow-up, and 11 of those with cancer died. An encouraging fact, however, was that three cancer patients had dramatic relief of pain until death (2-4 months) only one physiologically addicted patient continuing to use narcotics. Persistence of pain was most common among patients with causalgia or neuralgia but most of these people developed increased ease of mobility, and two were able to abandon their wheelchairs.

Information derived from our mailing of questionnaire is as follows:

Pain Etiological Group	Cancer	Causalgia/ Neuralgia	Post Herpetic	Idiopathic
Number of Questionnaires Mailed	15	22	4	8
Number of Replies Received	4	9	2	3
Replies Indicating Pain Relief	4	4	0	2
Duration of Such Relief (Weeks)	7	6	0	11
Replies Indicating No Relief	0	5	2	1

Discussion

Various mechanisms have been suggested as explaining the analgesic effect of subarachnoid cold saline therapy, including the neural response to cold itself[5, 6, 7], shifts in electrolyte balance[3] and mechanical pressure[8] on cord neurones and myelin. Cold saline analgesia remains unrationalized, but demonstrably effective in a useful proportion of patients with intractable pain.

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People can be divided into three groups: those who make things happen, those who watch things happen and those who wonder what happened.

—John W. Newbern

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The Brown Recluse Spider In Alabama: A Report Of Five Cases

William J. Perry, M.D.
Hartselle, Alabama

Introduction

Within the past two years, five documented cases of brown spider bites have been treated in Northern Alabama with identification of the specimen in four patients reported in this paper.

The term "loxoscelism" has been used in the literature to designate the medical consequence of the envenomed bite of *L. reclusa.* The term, however, infers that all species of the genus *Loxosceles* produce a severe bite which is not entomologically accurate and the term should be dropped and probably *necrotic arachnidism* be used to lessen the public's fear of these spiders. The term as used, however, has been inferred to include the bite of *L. reclusa*, the South American species, *laeta,* and possibly *unicolor* and *arizonica* in the Southwest.

It would appear that necrotic arachnidism caused by *Loxosceles reclusa* is of sufficient importance, however, to report these case studies with a discussion of the general problem that has caused concern in the population in the areas of distribution of *Loxosceles reclusa* primarily.

This species of arachnid, native to the South Central portion of the United States, appears to have a wide range of infestation. Plate I broadly outlines its distribution including the known reports in a personal communication from Dr. H. B. Cunningham, Department of Zoology-Entomology, Auburn University, and our present records of patient bites treated in Northern Alabama.

Although the symptoms of the brown spider bite and that of a related species have been recognized and reported from South America since 1877, the first recognized case documented with this particular arachnid was not published in the United States until 1957

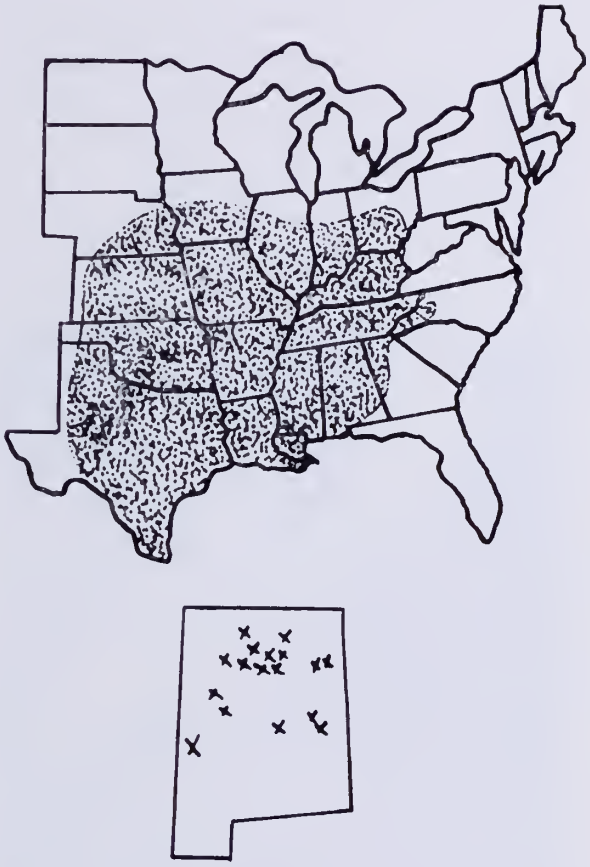


Plate I

Map shows the regions most heavily infested by the Brown Recluse Spider. This pest is commonly found in the southern and central states. Single specimens have been found in Florida, Washington, D.C., California, North Carolina, Pennsylvania and Wyoming. The distribution in Alabama appears in the northern half of the State. It may coincide with the extensive waterway traffic.

In reviewing the literature, it is comforting to note that many of the bites of *L. reclusa* may go unnoticed due to minor reactions that take place in many individuals. Lessenden and Zemmer[1] have attributed the mild reactions in one patient to a previous bite and they demonstrated antibodies by im-

muno-diffusion techniques. Berger[2] also feels that small doses of venom by repeated bites may produce immunity and these factors appear important in determining the degree of necrosis that takes place in individuals bitten by this spider.

With the recognition of the spider so readily made and the public's knowledge of the severe reaction of the bite, confusion exists in the minds of families afflicted, resulting in near hysteria and in some instances threats of legal indemnity if bitten in public environments and especially hospitals.

More important, however, an objective evaluation is needed of the overall significance of the bite of the spider including effectiveness of treatment of the progressive skin reaction.

The Spider and Its Ecology

The brown recluse is smaller than the well known black widow spider. The color variations run from a light golden straw to a medium chocolate brown. The body is covered by short hairs that are unremarkable to the naked eye.

The conspicuous marking recognized by the public is the "violin-shape" dark band which extends from the eyes back to the end of the cephalothorax. The identifying criteria, however, is the presence of three pairs of eyes set in a semicircle on the dorsal aspect of this combined head and trunk (cephalothorax), thus differentiating *reclusa* from other brown spiders. (Plate II)

L. reclusa may be found indoors or outdoors. As the name implies, it is not naturally an aggressive spider, but bites when molested. Its habitat includes darkened corners of storerooms, attics, closets, cabinets, outbuildings and abandoned dwellings. It may also be found in open fields and protective rocky crevices. Buildings that are dry, littered and contain many insects are the indoor areas of preference for this species.

The web is of rudimentary structure. A characteristic cast is shed periodically due to its growth pattern and these may suggest



Plate II

MALE AND FEMALE BROWN RECLUSE SPIDER

The fiddle shaped dark area on its back is characteristic of this species.

(Reproduced from leaflet No. 556, U.S. Dept of Agriculture.)

the presence of the species in the absence of a live spider. They are known to live for several months without food and water and appear sensitive to a variety of insecticides. Bedding taken from storage, clothing removed and transported from closets infrequently used may harbor the spider. The species is nocturnal in habits and man becomes a victim when the spider is accidentally squeezed in the bedding or in clothes to be worn or when the spider is disturbed in its general darkened habitat, behind pictures, storage trunks or boxes and furniture.

Recently a hospital became involved in a lawsuit in which a brown spider bite was

reported while the patient was hospitalized and being treated medically. Having practiced in a more "northernly hospital zone", I had been unaccustomed to the relatively free, heavy visitor traffic in and out of patient rooms including the bringing in of cots and blankets by friends and relatives in their vigil with patients. It is this practice that may be the source of brown spiders and a cause of hospital acquired bites. It may be significant that this practice should be minimized to discourage future lawsuits from difficult to prove sources of infestation which may complicate our already administrative problems of medical care. Administrators in hospitals with visitation practices that are lax could well appreciate this potential source of spiders introduced accidentally but fortunately rarely. This claim is significant, but one must assume that with the daily turnover of patients, routine changing of beds and linens, emptying of closets, routine cleaning, regular insecticide treatments of rooms and halls and general absence of known and accepted overt hiding places in the hospital room, such activity in these areas would be an unlikely source for normal habitation of a "recluse" spider.

The Bite and Tissue Reaction

Without exception, the chain of events that characterizes the bite is similar in report after report and the histo-pathologic details will not be discussed here.

The bite is relatively painless and may even go unnoticed at the actual time of envenomization. Pain at the site, varying from mild to severe, begins in two to eight hours. At the puncture site, there is a transient erythema followed by a bleb or blister-like lesion that soon becomes surrounded by an irregular ischemic area.

At this point, without the spider for confirmation, it could represent any type of insect bite, cellulitis, or an ill-defined ecchymosis and points up the difficulty of making an early diagnosis in order to institute appropriate therapy. Certainly a child presenting with this pattern, including headache, vomiting or jaundice, gross hematuria, or thrombocytopenia, should be suspect for "loxoscelism".

By eight hours, the pain is reported rather intense. The white ischemic area now becomes surrounded by an erythematous band and this blue, white, and red "bullseye" is a hallmark of the tissue reaction due to venom of the brown recluse regardless of the site of contact. At this point, patients invariably will consult a physician.

Over a period of 5-7 days, the stellate area of ischemia begins to turn dark and necrotic with some patients developing a separation of the margins to produce an ulcer. (Plate III)



Plate III

Local reaction seven days after bite of Brown Recluse showing the area of hemorrhage and early necrosis.

Some authors have encouraged grafting, but it would appear that this decision and technique has much to be desired and further comments will be made about such treatment under therapy.

Systemic Reaction

In addition to the skin lesion described, the toxin can evoke a serious systemic reaction particularly in young children. This type of reaction appears few in number, but one case

reported in this series was a bite on a 9-year-old transferred from another hospital, seen in the emergency room and transferred elsewhere due to the fulminating course of this illness. The spider was identified and a presumptive diagnosis of disseminated vascular coagulation was entertained. Vorse, et al[3] discuss the development of disseminated vascular coagulopathy following a fatal brown spider bite in their 7-year-old patient. This case was fatal five hours after hospital admission and 24 hours after developing jaundice and gross hematuria.

Therapy

The toxic factors comprising the venom are apparently multiple and probably account for the diffuse patterns reported in the literature.

In the series of four adult cases reported herein, the spider was identified in three cases. Two were seen within 12 hours of the bite, the third was seen promptly after the patient recognized the spider.

At this point, corticoidsteroid therapy was instituted and subcutaneous injections were made at the skin color margins in a clockwise fashion using a total of 25 mgm. of triamcinolone diacetate (1 cc) at the 12-3-6-9-12 locations at q6h dosages. Three patients treated in this fashion did as well as one patient given a recommended larger dose of Depo-medrol (80 mgm. I.M. q.24h) for three days, followed by a reduced dose of 40-20- and 10 mgm. daily for 3 days. All four cases healed without sloughing.

One can appreciate that four cases is not of significant note to establish this treatment as the ultimate, but it does seem appropriate to point out that immediate institution of steroids seems to benefit the patient in view of our lack of knowledge and understanding of the process and mechanics of necrotic arachidism. Dillaha, et al[4] have indicated a preference for corticosteroid treatment. In their series of 16 patients, six did not receive steroids and they developed the gangrenous slough. In ten treated with steroids, five developed local necrosis and five did not and, as pointed out, the failure of steroids to prevent necrosis may well be due to the lapse of time between the bite and institution of steroid therapy.

Simmons and Curtain[5] have been advocates of early excision and closure of the bite wound. According to these authors, treatment must be instituted within 4-6 hours of the initial insult. This obviously means that an almost impossible diagnosis must be made early, as alluded to above, unless the spider has been captured. It would appear that with ones lack of knowledge of the venom, the exact machanism of spread and the rapidity with which tissue becomes damaged and a limitation of visual determination as to extent of tissue destruction, the debridement technique has much to be desired and the prospect of a cosmetically disfiguring lesion needing more surgery must be contended with, especially if the bites are about the face or hands. In general, most authors have felt that incision, suction, or partial incision is generally unsuccessful and most prefer not to resort to tissue grafting. Results of animal studies by Jansen, et al[6] would suggest that excision and grafting of the venom site did not enhance healing or reduce necrosis when compared to the venom or grafted controls. An antivenom is being investigated. In South America where the bite of *L. laeta* is common, a commercial antivenom is available and reported to be of benefit for both cutaneous and visceral forms produced by the bite. Antihistamines appear to have no effect on the course of the toxic reaction and their use has not been recommended. The prophylactic use of antibiotics, tetanus toxoid and necessary sedation should be used as indicated.

Conclusions

Five cases are presented with a discussion of the reaction to injury from the bite of the brown spider *Loxosceles reclusa*. One case was identified early in a 9-year-old presenting with an apparent disseminated intravascular coagulopathy with recovery. Four cases presented with the classical signs of transient erythema, bleb, and irregular area of ische-

mia with their respective zones of hemorrhage, induration and erythema. Treatment by corticosteroids was used. In the cases presented in this study, all developed the central necrotic appearing area but the tissue did not slough. Healing was complete in three weeks.

The habitat and distribution of this species should alert individuals to be aware of their presence but more important, a sense of perspective should be developed to allay the fears of individuals bitten by this spider. In view of one lawsuit over a bite reported to be of hospital origin makes this problem one of concern to members of hospital medical staffs.

Lymphocyte transformation testing may provide a tool to examine the prevalence of this condition in an endemic population and to recognize unusual manifestations of the envenomization. It may also help in legal decisions relative to these bites when reported from hospitals in the absence of more definitive diagnostic clues.

It appears that the spider is sensitive to lindane as either dust or spray, preferably lindane dust that contains only one per cent lindane. Chlordane and malathion have been used successfully. Large storage buildings have been treated successfully by sealing and monthly treatments of a 2 per cent diazinon dust in a 1 per cent diazinon water emulsion spray and 0.5 per cent dieldrin.[7]

There is a need to alert physicians in the state to the presence of the recluse spider and the need for proper and prompt therapy.

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There are few, if any, jobs in which ability alone is sufficient. Needed also are loyalty, sincerity, enthusiasm, and cooperation.

Slow Me Down, Lord

Slow me down, Lord

Ease the pounding of my heart
by the quieting of my mind.

Steady my hurried pace
with a vision of the eternal reach of time

Give me, amid the confusion of the day,
the calmness of the everlasting hills.

Break the tensions of my nerves and muscles
with the soothing music of the singing streams
that live in my memory. Help me to know
the magical, restoring power of sleep.

Teach me the art of taking minute vacations—
of slowing down to look at a flower,
to chat with a friend, to pat a dog,
to read a few lines from a good book.

Slow me down, Lord, and inspire me
to send my roots deep into the soil of life's
enduring values that I may grow toward
the stare of my greater destiny.

—Author Unknown

The Upper Functional G.I. Disorder

The Pseudo-ulcer

Ulcer-like symptoms: no G.I. pathology



X-ray demonstrates normal stomach.

The patient is convinced he has an ulcer. However, symptoms are not quite typical, and x-ray findings are negative. These findings and the results of additional diagnostic procedures exclude an organic basis for the patient's complaints. A diagnosis of "upper functional gastrointestinal disorder" is made, which is supported by the fact that episodes of painful symptoms coincide with episodes of excessive anxiety, as indicated by the history.

It may be useful to explain to the patient the mechanism by which emotions upset normal G.I. functioning, resulting in hypersecretion and hypermotility and thus causing such symptoms as nausea and epigastric pain. In upper functional gastrointestinal disorders, counseling by the primary physician can often help the patient understand how excessive anxiety may cause flare-ups of G.I. symptoms.

A disproportionate number of patients seen by the general practitioner suffer from functional disorders, as do more than half of those seen by the gastroenterologist.* Where milder cases may respond to counseling alone, if symptoms are severe and disabling to any degree, a suitable regimen may include medication to reduce the symptoms and the excessive anxiety that often provokes these distressing symptoms.

In these cases, Librax as an adjunct can greatly contribute to the course of therapy. Its dual action can offer relief of both painful symptoms and excessive anxiety, because each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br. The antianxiety action of Librium® (chlordiazepoxide HCl) makes Librax exceptional among drugs for certain gastrointestinal disorders associated with excessive anxiety; the clidinium bromide (Quarzan™) component furnishes dependable antisecretory-antispasmodic action. Dosage is flexible; it may be adjusted according to your patient's requirements within the range of 1 or 2 capsules three or four times daily, up to 8 capsules daily in divided doses. Please consult the complete product information regarding precautions and adverse reactions.

*Rome HP, Brannick TL: Orientation and mechanism of functional disorders; clinicophysiologic correlation, chap. 133, in *Gastroenterology*, edited by Bockus HL. Philadelphia, W.B. Saunders Company, 1965, p. 1116.

An adjunct in anxiety-related upper functional G.I. disorders

Librax®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

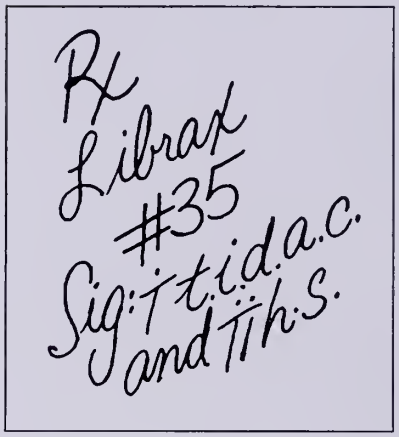
ROCHE

Please see summary of product information on following page.

An adjunct in anxiety-related upper functional G.I. disorders

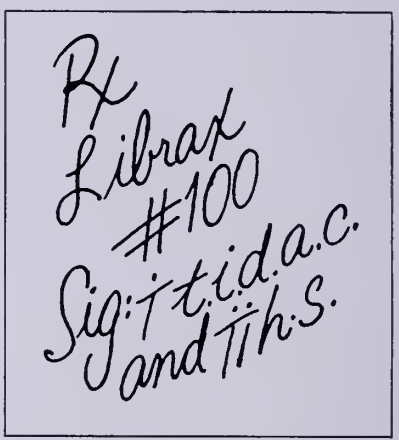
Librax®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.



Initial therapy

The initial prescription allows evaluation of patient response to therapy.



Follow-up therapy

Follow-up therapy with a prescription for 2 to 3 weeks' medication usually helps maintain patient gains.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Symptomatic relief of hypersecretion, hypermotility and anxiety and tension states associated with organic or functional gastrointestinal disorders; and as adjunctive therapy in the management of peptic ulcer, gastritis, duodenitis, irritable bowel syndrome, spastic colitis, and mild ulcerative colitis.

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido —all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

Dosage: Individualize for maximum beneficial effects. Usual maintenance dose is 1 or 2 capsules, 3 or 4 times a day, before meals and at bedtime. Geriatric patients—see Precautions.

How Supplied: Librax® Capsules, each containing 5 mg chlordiazepoxide hydrochloride (Librium®) and 2.5 mg clidinium bromide (Quarzan™)—bottles of 100 and 500.

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

CONTINUING MEDICAL EDUCATION

Hematology

by Larry Dixon

DIRECTIONS: Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the *one* that is BEST in each case.

1. Megaloblastosis complicating thalassemia major frequently shows a definite hematologic response to:

   (A) pyridoxine

   (B) cobalt

   (C) vitamin B-12

   (D) folic acid

   (E) ferrous sulfate

2. Immune anti-Rh gamma globulin (Rho Gam) is of most value in the treatment of

   (A) accidental infusion of a unit of Rh-positive blood into an Rh-negative man during surgery

   (B) an Rh-negative mother of an Rh-positive newborn

   (C) an Rh-positive recipient of Rh-negative blood

   (D) an Rh-positive mother of an Rh-negative newborn

   (E) an Rh-negative patient whose serum contains anti-Rh antibodies and who must be transfused

3. A patient with p r e v i o u s l y untreated Hodgkin's disease develops sudden signs and symptoms of superior vena cava obstruction. Which of the following drugs is most likely to be of immediate benefit to this patient.

   (A) Nitrogen mustard

   (B) Chlorambucil (Leukeran)

   (C) Uracil mustard

   (D) Actinomycin D (Cosmegen)

   (E) Phenylalanine mustard (Alkeran)

4. The treatment of aplastic anemia poses a difficult therapeutic challenge. Which of the following agents that have been used is most likely to have some favorable effect?

   (A) Vitamin B-12

   (B) Folic Acid

   (C) Iron preparations

   (D) Androgenic steroids

   (E) Liver extract

5. Which of the following is most suggestive of the existence of iron-deficiency anemia?

   (A) A decreased serum iron and increased iron-binding capacity

   (B) A decreased serum iron and normal iron-binding capacity

   (C) A decreased serum iron and decreased iron-binding capacity

   (D) A decreased saturation of the iron-binding protein

   (E) None of the above

6. Erythrocytes, leukocytes a n d platelets from patients with paroxysmal nocturnal hemoglobinuria show increased susceptibility to lysis by

   (A) immunoglobulin A (IgA)

   (B) immunoglobulin M (IgM)

(C) immunoglobulin G (IgG)

(D) immunoglobulin E (IgE)

(E) serum complement

7. A 52-year-old woman complains of progressive weakness and fatigue. Her spleen extends 14 cm below the left costal margin, and marked pallor of the skin is noted. There is mild scleral icterus.

Laboratory Studies:

Hemaglobin 7 gm/100 ml
Hematocrit 20 per cent
Erythrocyte count 2,110,000/cu mm
Leukocyte count 6700/cu mm

Differential count:

Neutrophils 60 per cent
Metamyelocytes 5 per cent
Myelocytes 3 per cent
Promyelocytes 1 per cent
Lymphocytes 25 per cent
Monocytes 2 per cent

Peripheral blood smear—Many tear-drop Poikilocytes

Reticulocytes 5 per cent
Normoblasts 6/100 leukocytes

Platelet count 340,000/cu mm
Serum Bilirubin

Total 2.2 mg/100 ml

Direct (conjugated) 0.2 mg/100 ml
Indirect (unconjugated) 2.0 mg/100 ml

The most likely diagnosis is

(A) erythroleukemia with hemolysis

(B) agnogenic myeloid metaplasia with hemolysis

(C) metastatic cancer with hemolysis

(D) chronic granulocytic leukemia

(E) none of the above

8. Which of the following is the LEAST likely primary cause of iron-deficiency anemia in adults?

(A) Menorrhagia

(Continued on Page 565)



Pro-Banthine®
brand of
propantheline bromide

Indications: Pro-Banthine is effective as adjunctive therapy in the treatment of peptic ulcer. Dosage must be adjusted to the individual.

Contraindications: Glaucoma, obstructive disease of the gastrointestinal tract, obstructive uropathy, intestinal atony, toxic megacolon, hiatal hernia associated with reflux esophagitis, or unstable cardiovascular adjustment in acute hemorrhage.

Warnings: Patients with severe cardiac disease should be given this medication with caution. Fever and possibly heat stroke may occur due to anhidrosis.

Overdosage may cause a curare-like action, with loss of voluntary muscle control. For such patients prompt and continuing artificial respiration should be applied until the drug effect has been exhausted. Diarrhea in an ileostomy patient may indicate obstruction, and this possibility should be considered before administering Pro-Banthine.

Precautions: Since varying degrees of urinary hesitancy may be evidenced by elderly males with prostatic hypertrophy, such patients should be advised to micturate at the time of taking the medication.

Overdosage should be avoided in patients severely ill with ulcerative colitis.

Adverse Reactions: Varying degrees of drying of salivary secretions may occur as well as mydriasis and blurred vision. In addition the following adverse reactions have been reported: nervousness, drowsiness, dizziness, insomnia, headache, loss of the sense of taste, nausea, vomiting, constipation, impotence and allergic dermatitis.

Dosage and Administration: The recommended daily dosage for adult oral therapy is one 15-mg. tablet with meals and two at bedtime. Subsequent adjustment to the patient's requirements and tolerance must be made.

How Supplied: Pro-Banthine is supplied as tablets of 15 and 7.5 mg., as prolonged-acting tablets of 30 mg. and, for parenteral use, as serum-type vials of 30 mg.

SEARLE **Searle & Co.**
San Juan, Puerto Rico 00936

Address medical inquiries to: G. D. Searle & Co.
Medical Department, Box 5110, Chicago, Ill. 60680 481

"Antiacid" action for ulcer patients...

one of the many things you need in an anticholinergic.



Pro-Banthine is considered adjunctive in total peptic ulcer therapy that may include diet, conventional antacids, bed rest, and other supportive measures.

Pro-Banthine is provided in several different dosage forms which will meet virtually any clinical need. It is just as versatile in filling patient needs, among which are:

"Antiacid" action—Pro-Banthine® (propantheline bromide) reduces gastric secretory volume and resting total and free acid.

"Analgesic" action—Pro-Banthine helps to control the acid-spasm-pain complex.

Vigorous anticholinergic action—Pro-Banthine® Vials, 30 mg., are for intramuscular or intravenous use when prompt and vigorous anticholinergic action is required.

Mild anticholinergic action—Pro-Banthine® Half Strength, 7.5 mg. tablets, for more exact adjustment of maintenance dosage in mild to moderate gastrointestinal disorders.

Pro-Banthine®
(propantheline bromide)

a good option in peptic ulcer

PAIN RELIEF FOR THE MAJORITY

NO.4—for pain intensity below the need for injectables

As a rule, only pain that requires morphine is beyond the scope of Empirin® Compound with Codeine No. 4. That's because it delivers a full grain of codeine. (In the preferred phosphate form.) Its antitussive action is particularly appreciated by patients with fractured ribs, and following chest or abdominal surgery. Its low addiction liability is a bonus for all patients who require potent analgesia.

NO.3—for almost all other kinds of lesser pain

Most other kinds of lesser pain respond to Empirin Compound with Codeine No. 3—whether musculoskeletal, neurological, soft-tissue or visceral. One might say No. 3 is an "all-purpose" analgesic — not too little, not too much. Just right for your out-patients in these categories.

Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

BURNS



Wherever it hurts

EMPIRIN® COMPOUND c CODEINE

No.3, codeine phosphate*(32.4 mg) gr ½ · No.4, codeine phosphate*(64.8 mg) gr 1

*Warning—may be habit-forming.

Each tablet also contains aspirin gr 3½, phenacetin gr 2½, caffeine gr ½.

Before prescribing, see complete prescribing information in SK&F literature or *PDR*. The following is a brief summary.

Indications: Edema associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. Also, mild to moderate hypertension.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. **Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently**—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

Supplied: Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

SK&F CO.
Carolina, P.R. 00630
Subsidiary of
SmithKline Corporation

KEEP THE HYPERTENSIVE PATIENT ON THERAPY KEEP THERAPY SIMPLE WITH DYAZIDE®

Trademark

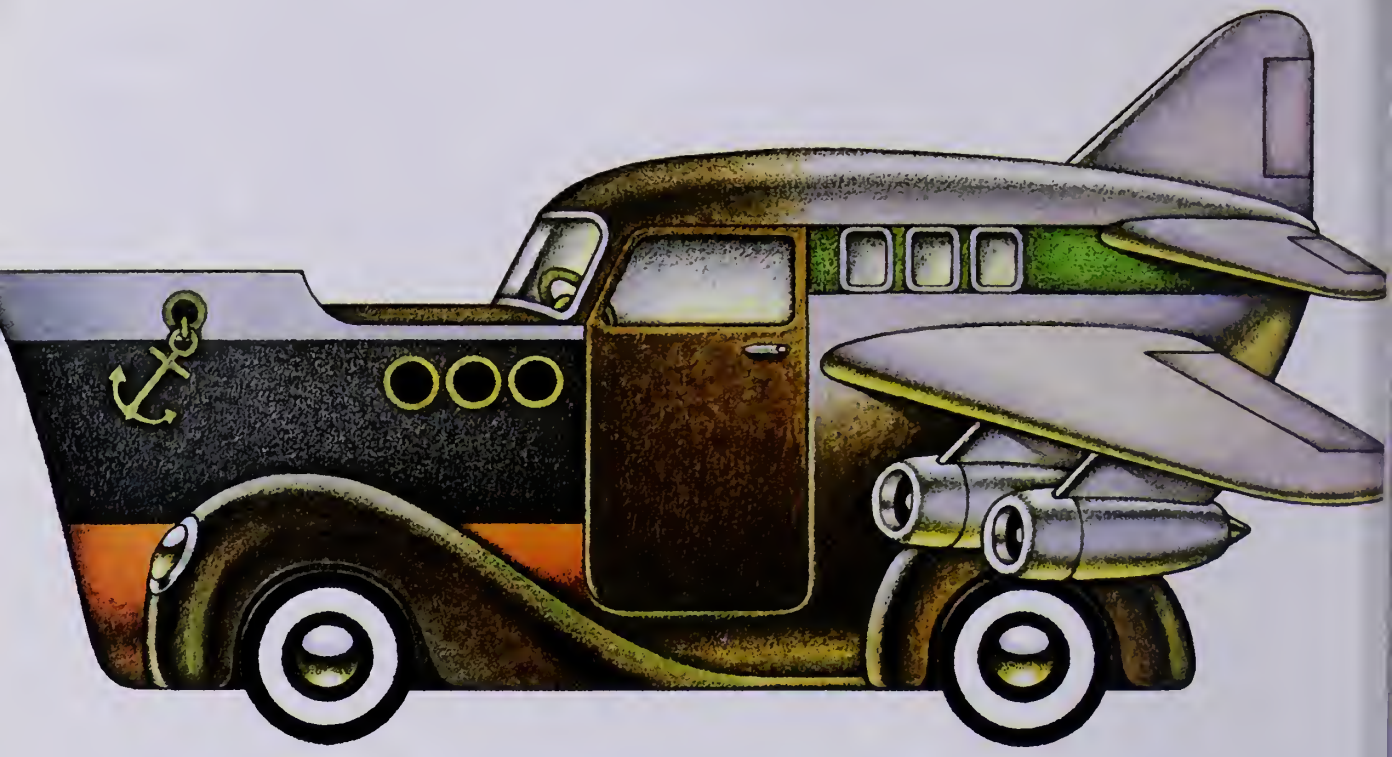
Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

Neither inconvenient potassium supplements nor special K^+ rich diets needed as a rule. Just 'Dyazide' once or twice daily for maintenance.



Two prime reasons patients drop out of hypertensive therapy are (1) the patient failed to understand directions, and (2) the regimen was overly complicated. Dosage is simple with 'Dyazide', easily understood, once or twice daily, depending on response. There's no need to complicate the regimen with potassium supplements or unwieldy potassium-rich diets.

TO KEEP BLOOD PRESSURE DOWN AND KEEP POTASSIUM LEVELS UP



On land, sea, and in the air...

Up to 24 hours of effective control with a single dose...in nausea, vomiting and dizziness associated with motion sickness.

Dosage: 25 to 50 mg. 1 hour before travel.

Available on prescription only.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

CONTRAINDICATIONS. Administration of Antivert during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

ROERIG Pfizer
A division of Pfizer Pharmaceuticals
New York, New York 10017

Antivert®/25 Chewable Tablets
(meclizine HCl) 25 mg.

for motion sickness

(Continued from Page 560)

(B) Frequent pregnancies

(C) A diet low in iron content

(D) Hiatus hernia

(E) Carcinoma of the colon

9. Each of the following is recognized to be an etiologic factor in iron-deficiency anemia EXCEPT

(A) excessive sweating in tropical climates

(B) hookworn infestation

(C) ulceration colitis

(D) paroxysmal nocturnal hemoglobinuria

(E) hereditary telangiectasia

10. Untreated pernicious anemia is characterized by each of the following EXCEPT

(A) increased serum iron

(B) decreased serum lactic dehydrogenase

(C) histamine-resistant achlorhydria

(D) elevated levels of serum bilirubin, urinary urobilinogen and fecal stercobilin

(E) increased urinary excretion of methlymalonic acid

Correct Answers: 1-D, 2-B, 3-A, 4-D, 5-A, 6-E, 7-B, 8-C, 9-A, 10-B

A suburbanite put on a last-minute spurt of speed to catch his train—but missed it. A bystander remarked, "If you had just run a little you would have made it."

"No," the suburbanite replied, "it wasn't a case of running faster, but of starting sooner."

Is there a tablet containing *only* an expectorant and *only* Glyceryl Guaiacolate? YES!



HYTUSS TABS

(GLYCERYL GUAIACOLATE 100mg.)

1. Patient acceptable tablet dose.
2. Single entity expectorant.
3. Measured tablet dose.
4. Sugar-free tablet.

An identifiable white, scored tablet which significantly stimulates the secretion of respiratory tract fluid.



Composition: Each sugar-free compressed tablet contains glyceryl guaiacolate 100mg. **Action and Use:** This preparation utilizes the effective expectorant action of glyceryl guaiacolate which significantly stimulates the secretion of respiratory tract fluid. The increased flow of less viscid fluid favors expectoration and has a demulcent effect on the tracheobronchial mucosa. The primary usefulness of Hytuss Tabs is to promote the change from a dry, unproductive cough to a productive cough. Hytuss is therefore useful in treating coughs due to the common cold, bronchitis, laryngitis, tracheitis, pharyngitis, influenza and the measles. The expectorant action of Hytuss may also provide symptomatic relief in some chronic respiratory disorders when the patient experiences spasms of dry nonproductive coughing. **Precautions:** Extremely large amounts may cause nausea and vomiting. **Administration and Dosage:** *Adults*—1 tablet four times daily. *Children*—6 to 12 years of age; ½ tablet 3 or 4 times daily. HOW SUPPLIED: White, scored, sugar-free, tablet in bottles of 100 - 1,000 - 5,000. **Product Identification Mark:** Hy. **Literature Available:** On request.

Available through all drug wholesalers.

Hyrex

HYREX COMPANY

832 South Cooper
Memphis, Tenn. 38104

SIGHTS AND SOUNDS

The following films are made available from Eaton Medical Film Library. They may be obtained by either contacting your local Eaton representative or by writing to Eaton Medical Film Library, Eaton Laboratories Division, Morton-Norwich Products, Inc., Norwich, New York 13815.

Bifid Ureter: Diagnosis and Surgical Treatment (858)

Arjan D. Amar, M. D.

Bifid Ureter (incomplete duplication of the ureter) is the most common anomaly of the urinary tract.

Examples of the problems most frequently associated with this anomaly are illustrated. The complications that are most likely to necessitate surgical treatment and diagnostic evaluation are stressed. Surgical methods include the correction of obstruction and removal of calculi. Operative techniques for the treatment of vesicoureteral reflux and ureteroureteral reflux are shown.

16 mm., color and sound, 18 minutes (1974)

Surgical Treatment of Machine Induced Genital Trauma (715)

David A. Culp, M. D., Rubin Flocks, M. D., M. A. Immergut, M. D., D. E. Johnson, M. D.

This film demonstrates the manner in which rural avulsion genital injuries occur and the surgical technic utilized in the management of the denuded penile shaft and testis.

16 mm., color and sound, 13 minutes (1974)

Endoscopic Diagnosis and Resection of Urethral Valves (850)

W. Hardy Hendren, M. D.

This film demonstrates urethral valves seen in boys of various ages. Each case includes voiding cystograms, endoscopic visualization of the valves, their operative destruction, and postoperative evaluation. The cases shown encompass a spectrum from the newborn with severe hydronephrosis to older boys with minimal symptoms.

16 mm., color and sound, 18 minutes (1974)

The Illeal Conduit Stoma: Location and Construction (710)

Clarence B. Hewitt, M. D., Rupert Turnbull, Jr., M. D.

The authors' method of locating the ileostomy stoma and their technique for construction of the stoma are illustrated in detail.

16 mm., color and sound, 21 minutes (1974) IV

The Technique of Radical Cystectomy (719)

Donald G. Skinner, M. D.

This film was initially televised using regular operating room lights, recorded on tape with a live narration describing the specific technique as the operation was performed.

It demonstrates a systemic and meticulous approach to radical cystectomy with en bloc pelvic lymph node dissection.

16 mm., color and sound, 42 minutes (1974)

Illeocecal Cystoplasty (711)

Rueben F. Gittes, M. D.

The film illustrates the technique which provides a capacious new bladder and a valve against reflux. It is applied in a boy with skin ureterostomies, after repeated failures of reimplantation. Other uses include bladder augmentation in severe interstitial cystitis and tuberculosis, bleeding radiation cystitis, and the small bladder after staged reconstruction of epispadias with incontinence.

16 mm., color and sound, 14 minutes (1974)

Epispadias (855)

Charles J. Devine, Jr., M. D., Charles E. Horton, M. D.

This film demonstrates the correction of a mid-shaft epispadias with dorsal chordee by excision of the fibrous tissue which is holding the penis in chordee and replacement of deficient urethra with full thickness tube graft of prepucial skin in the development of a glanular V-flap to place the urethral leatus in the glans penis.

16 mm., color and sound, 18 minutes (1974)

Perineal Repair of Urethral Strictures With Skin Graft Patch (859)

Charles J. Devine, Jr., M. D., Patrick C. Devine, M. D.

This film demonstrates the surgical repair of a urethral stricture by approaching the stricture through a perineal incision, incising the strictured area and replacing the deficient tissue with a patch graft of full thickness skin removed from the penis.

16 mm., color and sound, 14 minutes (1975)

Exstrophy of the Bladder (860)

Charles J. Devine, Jr., M. D., Charles E. Horton, M. D., George A. Harkins, M. D., Joseph G. Fiveash, M. D.

This film depicts the pathology of the embryologic process which causes exstrophy of the bladder and a technique for surgical correction by excision of the bladder mucosa and ileal loop urinary diversion. Epispadias repair can be accomplished at a future stage.

16 mm., color and sound, 12 minutes (1974)

Pheochromocytoma: Diagnosis, Localization, Preoperative Preparation and Anterior Transabdominal Excision (861)

Joseph C. Cerny, M. D., Riad Farah, M. D.

Diagnosis of pheochromocytoma can be made with 100 per cent accuracy with appropriate biochemical techniques.

Following tumor localization and preoperative preparation of the patient, transabdominal excision of the tumor, as well as exploration of the contralateral adrenal gland and retroperitoneal midline structures from diaphragm to pelvis, is performed.

16 mm., color and sound, 18 minutes (1974)

The Guest House
IN-TOWN CONVENIENCE MOTOR INN
18TH STREET AND 10TH AVENUE, SOUTH
BIRMINGHAM, ALABAMA 35205 • PHONE 933-7700

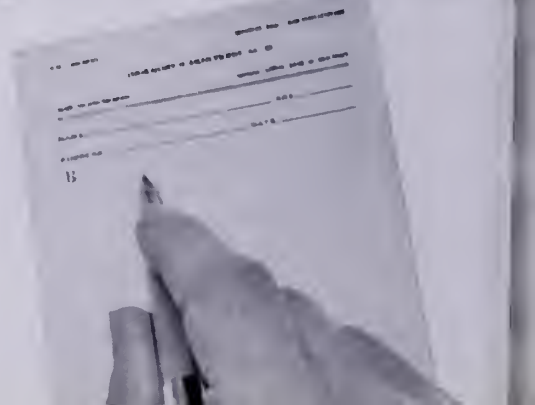


Beautiful Pool
Three Lounges with entertainment nightly
Large Banquet facilities seating
up to five hundred people

"Everybody Is Somebody At The Guest House"



Bioequivalence



the weight of scientific opinion:

If the pharmacist substituted a chemically equivalent drug for the one you have specified for your patient—could you be certain of that product's safety and effectiveness simply because the chemical content was the same?

Definitely not, unless bioequivalence tests and other quality assurance checks had been conducted. The pharmaceutical industry and many scientists have maintained this position for years, but others have questioned it. Now the Office of Technology Assessment of the Congress of the United States has reported on the issue in its Drug Bioequivalence Study.*

Here are a few definitive statements in the O.T.A. report:

"...the problem of bioinequivalency in chemically equivalent products is a real one. Since the studies in which lack of bioequivalence was demonstrated involved marketed products that met current compendial standards, these documented instances constitute unequivocal evidence that neither the present standards for testing the finished product nor the specifications for materials, manufacturing process, and controls are adequate to ensure that ostensibly equivalent drug products are, in fact, equivalent in bioavailability.



"While these therapeutic failures resulting from problems of bioavailability were recognized and well documented, it is entirely possible that other therapeutic failures and/or instances of toxicity that had a similar basis have escaped attention."

The Pharmaceutical Manufacturers Association supports federal legislative amendments that would require manufacturers of duplicate prescription pharmaceutical products, subject to new drug procedures, to document:

(a) chemical equivalence; and

(b) biological equivalence, where bioavailability test methods have been validated as a reliable means of assuring clinical equivalence; or

(c) where such validation is not possible, therapeutic equivalence.

In addition, the PMA supports federal legislation that would require certification of all manufacturers of prescription products before they could start in business, annual inspections and certification thereafter, and strict adherence to FDA regulations on good manufacturing practices.

The overall quality of the United States drug supply is excellent. But only a total quality assurance program, envisaged in these and other policy positions adopted by the PMA Board of Directors in 1974, can bring about acceptable levels of performance by all prescription drug manufacturers and thereby assure the integrity of your prescription...

P·M·A

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MEDICO - LEGAL DIALOG

Psychotherapist Has Duty To Warn Potential Victim Of Patient's Threat

By John T. Mooresmith
General Counsel

Just as a doctor treating a contagious physical disease has a duty to warn threatened persons of the danger emanating from his patient's illness, the California Supreme Court has held that a psychologist treating a mentally ill person has a duty to give such warnings as are essential to avert foreseeable dangers arising from his patient's condition. Thus, a psychotherapist's negligent failure to warn a third party of his patient's threat against her life rendered the psychotherapist civilly liable for the third party's subsequent murder.

The patient had confided to the psychotherapist his intention to kill the victim. The psychotherapist then asked the police to pick the patient up for phychiatric observation. The police detained the patient, but released him when he appeared rational. Following this encounter, the patient broke off all contact with the psychotherapist and two months later carried out his threat to kill the victim.

Although previous California decisions had recognized a duty to warn the victim when the doctor had a special relationship both to the victim and to the person whose conduct created the danger, the court stated that there was no reason that this duty should be restricted to such situations. The single relationship of a doctor to his patient is sufficient in the court's opinion to support the duty to warn a potential victim.

In this case, the complaint alleged that the psychotherapist, after his patient confided his intention to kill the victim, asked the campus police to pick up the patient for psychiatric observation. The police retained the patient, but released him when he appeared rational. Following his encounter with the police, the patient broke off all contact with the hospital staff and discontinued psychotherapy. From these facts, the court inferred that the psychotherapist's as well as the policemen's actions led the patient to halt treatment that might have led him to abandon his plan to kill the victim. Thus, both the psychotherapist and the police contributed to the danger and, consequently, bore a duty to give a warning.

The psychotherapist argued that while patients often express thoughts of violence, they rarely carry out these ideas. Certainly, he argued, a therapist should not be encouraged to routinely reveal such threats to acquaintances; such disclosures could seriously disrupt the patient-therapist relationship, as well as the patient's relationship to the person threatened. To single out those few patients whose threats of violence present a serious danger and to weigh this danger against possible harm to the patient that might result from such revelation would oblige the psychotherapist to render a decision involving a high order of expertise and judgment. The court, however, stated that this judgment is no more demanding than the judgment that doctors and professionals must regularly render under accepted rules of responsibility.

The psychotherapist also argued that free and open communication is essential to psychotherapy. The court recognized the public

interest in supporting effective treatment of mental illness and in protecting the rights of patients to privacy, but stated that this interest must be weighed against the public interest in safety from violent assault. The public policy favoring protection of the confidential character of patient-psychotherapist relations must yield in instances in which disclosure is essential to avert danger to others.

In an opinion dissenting from the majority opinion, Justices Clark and McComb stated that when a psychiatrist terminates treatment to a patient and thereby increases the risk of violence, the psychiatrist must warn a potential victim. However, a psychiatrist has no duty to disclose threats of violence based solely upon his prior psychiatrist-patient relationship. The majority failed to realistically evaluate the devastating impact the new duty will have on the field of mental health. Successful psychotherapy demands confidentiality. The duty to warn imposed by the majority will cripple the use and effectiveness of psychiatry by destroying the assurance of confidentiality that psychiatry demands. The dissent went further and stated that given the majority's recognition that under existing psychiatric procedures only a relatively few patients will ever present a serious risk of violence, this newly-imposed duty will likely result in a net increase in violence rather than preventing future violence.

At the present time, this decision applies only to psychotherapists in California. However, now that the State of California has established this principle as a matter of law, other states may be influenced by the decision.

Unmarried Minor Does Not Need Parental Consent for Abortion

John T. Mooresmith
General Counsel, MASA

Two years ago, the United States Supreme Court recognized a woman's right to make an abortion decision at least in the early stages of pregnancy without governmental restriction. In a five-four decision, the Washington State Supreme Court recently found that the same right of privacy that protects a pregnant woman from direct governmental interference also shields a minor unmarried woman who wants an abortion from the requirement of parental consent imposed by a state statute.

In the court's view, the assurance of an informed abortion decision by a minor for the need to preserve the family unit and parental authority, both argued by the state as objectives of the law, is "a compelling state interest" that would override the due process violation. Additionally, the court found that the distinctions drawn by the statute between different classes of pregnant women—e.g. an abortion for a single adult is conditioned on her consent alone—offends the Equal Protection Clause.

While imprecision and statutory age classifications are sometimes permissible even where important rights are concerned, it is not warranted in the abortion area according to the court. The court stated "the age of fertility provides a practical minimum age requirement for consent to abortion reducing the need for a legal one." Also the common law requires that a physician subjectively evaluate the capacity of a minor to give informed consent to any type of medical care. Thus, the interest of the state in supporting parental authority and enhancing the quality of personal judgment is to a large extent safeguarded by classifications already created by nature and common law. (Washington v. Koome, 1775).

While this decision applies only in the state of Washington at this time, the reasoning of the Washington State Supreme Court could be applied in the future in other jurisdictions as well.

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1. Armour Thyroid (Tablets). 1975 Physicians' Desk Reference. p. 561.
2. Proloid® (thyroglobulin). 1975 Physicians' Desk Reference. p. 1575.

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3. Stock, J.M., Surks, M.I., and Oppenheimer, J.H.: Replacement dosage of L-thyroxine in hypothyroidism. A re-evaluation. New Engl. J. Med. *290*:529-33, 1974.

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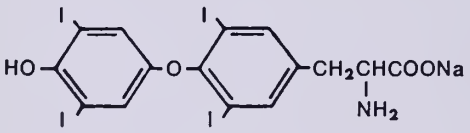
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Description

SYNTHROID (sodium levothyroxine) **Tablets** and SYNTHROID **Injection** contain synthetic crystalline sodium levothyroxine (L-thyroxine). L-thyroxine is the principal hormone secreted by the normal thyroid gland.



Sodium Levothyroxine

Actions

SYNTHROID (sodium levothyroxine) **Tablets**, taken orally, provide hormone that is readily absorbed from the gastrointestinal tract. SYNTHROID **Injection** is effective by any parenteral route. Following absorption, the synthetic L-thyroxine provided by SYNTHROID products cannot be distinguished from L-thyroxine that is endogenously secreted. Each is bound to the same serum proteins and each exhibits a six to seven day circulating half-life in the euthyroid individual.

Both SYNTHROID products will provide L-thyroxine as a substrate for physiologic delodination to L-triiodothyronine. Therefore, patients taking SYNTHROID products will demonstrate normal blood levels of L-triiodothyronine even when the thyroid gland has been surgically removed or destroyed by rediolodine. Administretion of levothyroxine alone will result in complete physiologic thyroid replacement.

Indications

SYNTHROID (sodium levothyroxine) products serve as specific replacement therepy for reduced or absent thyroid function of any etiology. SYNTHROID **Injection** can be used intravenously whenever a rapid onset of effect is critical, end either intravenously or intremuscularly in hypothyroid petients whenever the oral route is precluded for long periods of time.

Contraindications

There are no absolute contreindications to SYNTHROID (sodium levothyroxine) therepy. Relative contreindications include ecute myocerdial infarction, uncorrected edrenel insufficiency end thyrotoxicosis. (See WARNINGS)

Warnings

Petients with cerdiovascuier diseases werrant particulerly close ettention during the restoretion of normal thyroid function by any thyroid drug. In such ceses, low initiel dosage increased slowly by smell increments is indicated. Occesionelly, the cerdiovescuier capecity of the patient is so compromised thet the metebolic demands of the normel thyroid stete cennot be met. Clinicel judgment will then dictete either a less-than-complete restoretion of thyroid stetus or reduction in thyroid dosege.

Endocrine disorders such es diebetes mellitus, edrenel insufficiency (Addison's diseese), hypopituiterism end diebetes insipidus ere cherecterized by signs end symptoms which mey be diminished in severity or obscured by hypothyroidism. SYNTHROID (sodium levothyroxine) therapy for such petients mey eggrevete the intensity of previously obscured symptoms and require eppropriete edjustment of therepeutic measures directed et these concomitent disorders.

Thyroid replacement may potentiate the effects of anticoagulants. Patients on anticoagulant therapy should have frequent prothrombin determinations when instituting thyroid replacement to gauge the need to reduce anticoagulant dosage.

Precautions

Overdosage with any thyroid drug may produce the signs and symptoms of thyrotoxicosis, but resistance to such factitious thyrotoxicosis is the general rule. With SYNTHROID (sodium levothyroxine) **Tablets**, the relatively slow onset of action minimizes the risk of overdose but close observation in the weeks following institution of a dosage regimen is advised. Treatment of thyroid hyperactivity induced by oral medication is confined to interruption of therapy for a week, followed by reinstitution of daily therapy at an appropriately reduced dosage.

Adverse reactions

Adverse reactions are due to overdose and are those of induced hyperthyroidism.

Dosage and administration

For most adults, a final dosage of 100 mcg (0.1 mg) to 200 mcg (0.2 mg) of SYNTHROID (sodium levothyroxine) **Tablets** daily will restore normal thyroid function and only occasionally will patients require larger doses. Failure to respond adequately to a daily oral intake of 400 mcg (0.4 mg) or more is rare and should prompt reconsideration of the diagnosis of hypothyroidism, special investigation of the patient in terms of malabsorption of L-thyroxine from the gastrointestinal tract or poor adherence to therapy.

The concomitant appearance of other diseases, especially cardiovascular diseases, usually dictates a replacement regimen with initial doses smaller than 100 mcg/day (0.1 mg).

In otherwise healthy adults with relatively recent onset of hypothyroidism, full replacement dose of 150 mcg (0.15 mg) or 200 mcg (0.2 mg) has been instituted immediately without untoward effect and with good therapeutic response. General experience, however, favors a more cautious approach in view of the possible presence of subclinical disorders of the cardiovascular system or endocrinopathies.

The age and general physical condition of the patient as well as the severity and duration of hypothyroid symptoms determine the starting dosage and the rate of incremental dosage increase leading to a final maintenance dosage. In the elderly patient with long standing disease, evidence of myxedematous infiltration and symptomatic, functional or electrocardiographic evidence of cardiovascular dysfunction, the starting dose may be as little as 25 mcg (0.025 mg) per day. Further incremental increases of 25 mcg (0.025 mg) per day may be instituted at three to four week intervals depending on patient response. Conversely, otherwise healthy adults may be started at higher daily dosage and raised to the full replacement dosage in two to three weeks. Clearly it is the physician's judgment of the severity of the disease and close observation of patient response which determines the rate of dosage titration.

Laboratory tests to monitor thyroid replacement therapy are of limited value. Although measurement of normal blood levels of thyroxine in patients on replacement regimens frequently coincides with the clinical impression of normal thyroid status, higher than normal levels on oral replacement of levothyroxine occasionally occurs and should not be considered evidence of overdosage per se.

In all cases, clinical impression of the well-being of the patient takes precedence over laboratory determination in determining the appropriate individual dosage.

In infants and children, there is a great urgency to achieve full thyroid replacement because of the critical importance of thyroid hormone in sustaining growth and maturation. Despite the smaller body size, the dosage needed to sustain a full rate of growth, development and general thriving is higher in the child than in the adult, as much as 300 mcg (0.3 mg) to 400 mcg (0.4 mg) per day.

In myxedema coma or stupor, without concomitant severe heart diseese, 200 to 500 mcg of SYNTHROID **Injection** may be administered intrevenously as a solution containing 100 mcg/ml. Although the patient may show evidence of increased responsivity within six to eight hours, full therapeutic effect may not be evident until the following day. An additional 100 to 300 mcg or more may be given on the second day if evidence of significant and progressive improvement has not occurred. Like the orel dosage form, SYNTHROID **Injection** produces e predictable increase in the circulating level of hormone with a long half-time. This usually precludes the need for multiple injections but continued daily administration of lesser amounts intravenously should be maintained until the patient is fully cepable of eccepting e daily oral dose.

In the presence of concomitant heart diseese, the sudden edministretion of such large doses of L-thyroxine intravenously is clearly not without its cardiovascular risks. Under such circumstances, intravenous therepy should not be undertaken without weighing the alternative risks of the myxedeme coma end the cardiovascular disease. Clinicel judgment in this situation may dictete smaller intravenous doses of levothyroxine.

SYNTHROID **Injection** by intravenous or intramuscuier routes cen be substituted for the oral dosage form when ingestion of SYNTHROID **Tablets** is precluded for long periods of time.

How supplied

SYNTHROID (sodium levothyroxine) **Tablets** are supplied as scored, color-coded compressed tablets in 6 concentretions: 25 mcg (0.025 mg)—orenge . . . 50 mcg (0.05 mg)—white . . . 100 mcg (0.1 mg)—yellow . . . 150 mcg (0.15 mg)—violet . . . 200 mcg (0.2 mg)—pink . . . 300 mcg (0.3 mg)—green. Depending on strength, these tablets are available in bottles of 100, 500, 1000 end 5000.

SYNTHROID (sodium levothyroxine) for **Injection** is supplied in 10 ml viels containe 500 mcg of lyophilized ective ingredient end 10 mg of Mannitol, U.S.P. A seperete 5 ml vial conteining Sodium Chloride Injection, U.S.P. is provided es a diluent.

Directions for reconstitution

Reconstitute the lyophilized sodium levothyroxine by eseptically edding 5 ml of the Sodium Chloride Injection, U.S.P. to the viel. Sheke vial to insure complete mixing. **Use immediately** after reconstitution. Discerd eny unused portion.

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*U.S. Pet. 2,889,363

The Secret of No. 6

In his book, HOW TO WIN FRIENDS AND INFLUENCE PEOPLE, Simon & Schuster, Inc., Dale Carnegie tells the story of a steel mill manager, under Charles Schwab, whose men weren't producing their quota of work.

"How is it," Schwab asked, "that a man as capable as you can't make this mill turn out what it should?"

"I don't know," the man replied, "I've coaxed the men; I've pushed them; I've sworn and cussed; I've threatened them with damnation and being fired. But nothing works. They just won't produce."

It happened to be the end of the day, just before the night shift came on.

"Give me a piece of chalk," Schwab said. Then, turning to the nearest man: "How many heats did your shift make today?"

"Six."

Without another word, Schwab chalked a big figure six on the floor, and walked away.

When the night shift came in, they saw the "6" and asked what it meant. "The big boss was in here today," the day men said. "He asked us how many heats we made, and we told him six. He chalked it down on the floor."

The next morning Schwab walked through the mill again. The night shift had rubbed out "6," and replaced it with a big "7."

When the day shift reported for work the next morning, they saw a big "7" chalked on the floor. So the night shift thought they were better than the day shift, did they? Well, they would show the night shift a thing or two. They pitched in with enthusiasm and when they quit that night, they left behind them an enormous, swaggering "10."

Shortly, the mill, which had been lagging way behind in production, was turning out more work than any other mill in the plant.

(Continued on Page 580)

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hipworm, roundworm, hookworm and mixed infections:
1 chewable tablet b.i.d. for 3 consecutive days
inworm: 1 chewable tablet

the patient is not cured three weeks after treatment, a second course of treatment is advised.

ighly effective

	Mean cure rates	Mean egg reduction
hipworm	68%	93%
undworm	98%	99.7%
ookworm	96%	99.9%
nworm	95%	— — —

mplicity of administration patients can take the tablet at any time. an be chewed, swallowed or crushed and mixed with food. No messy liquids to pour.

ot a dye new Vermox* (mebendazole) chewable tablets will not stain clothes, teeth, feces, toilet bowls, etc.

onvenient neither laxatives nor special diet required. Therapy does not interfere with daily activities.

ell tolerated transient symptoms of abdominal pain and diarrhea have occurred. cases of massive infection and expulsion of worms.

rmox has not been extensively studied in children under 2 years of age, and thus, the relative benefit/risk ould be considered before treating these children. Vermox is contraindicated in egnant women. (see: Pregnancy Precautions) and in persons who have shown hypersensitivity to the drug.

lications Vermox* (mebendazole) is indicated for the treatment of *huris trichiura* (whipworm), *Enterobius vermicularis* (pinworm), *aris lumbricoides* (roundworm), *Ancylostoma duodenale* (common kworm), *Necator americanus* (American hookworm) in single or ed infections.

cacy varies in function of such factors as pre-existing diarrhea and trointestinal transit time, degree of infection and helminth strains. cacy rates derived from various studies are shown in the table below:

	Trichuris	Ascaris	Hookworm	Pinworm
cure rates mean (range)	68% (61-75%)	98% (91-100%)	96% —	95% (90-100%)
g reduction mean (range)	93% (70-99%)	99.7% (99.5-100%)	99.9% —	— —

traindications Vermox is contraindicated in pregnant women Pregnancy Precautions) and in persons who have shown hyper- itivity to the drug.

Precautions *PREGNANCY:* Vermox has shown embryotoxic and teratogenic activity in pregnant rats at single oral doses as low as 10 mg/kg. Since Vermox may have a risk of producing fetal damage if administered during pregnancy, it is contraindicated in pregnant women.
PEDIATRIC USE: The drug has not been extensively studied in children under two years; therefore, in the treatment of children under two years the relative benefit/risk should be considered.

Adverse reactions Transient symptoms of abdominal pain and diarrhea have occurred in cases of massive infection and expulsion of worms.

Dosage and administration The same dosage schedule applies to children and adults.
For control of trichuriasis, ascariasis, and hookworm infection, one tablet of Vermox is administered morning and evening on three consecutive days. For control of enterobiasis, a single tablet of Vermox is given.
If the patient is not cured three weeks after treatment, a second course of treatment is advised. No special procedures, such as fasting or purging, are required.

How supplied Vermox is available as tablets, each containing 100 mg of mebendazole, and is supplied in boxes of twelve tablets.

Ortho Pharmaceutical Corporation,
Raritan, New Jersey 08869

*TRADEMARK

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(Continued from Page 577)

"The way to get things done," said Schwab, "is to stimulate competition. I do not mean in a sordid, money-getting way, but in the desire to excel."

The best way to forget your own problem is to help someone solve his.

The goal of criticism is to leave the person with the feeling that he's been helped.

A man rarely succeeds at anything unless he has fun doing it.

A leader has two important characteristics: first, he is going somewhere; second, he is able to persuade other people to go with him.

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PRESCRIBING INFORMATION

Antiminth (pyrantel pamoate) Oral Suspension

Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13μg/ml.) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with pre-existing liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

Dosage and Administration. *Children and Adults:* Antiminth Oral Suspension (50 mg. of pyrantel base/ml.) should be administered in a single dose of 11 mg. of pyrantel base per kg. of body weight (or 5 mg./lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 cc. of Antiminth per 10 lb. of body weight. (One teaspoonful = 5 cc.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

How Supplied. Antiminth is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg. pyrantel base per ml., supplied in 60 cc. bottles and Unitcups™ of 5 cc. in packages of 12.

ROERIG Pfizer

A division of Pfizer Pharmaceuticals
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WORMS BLITZED



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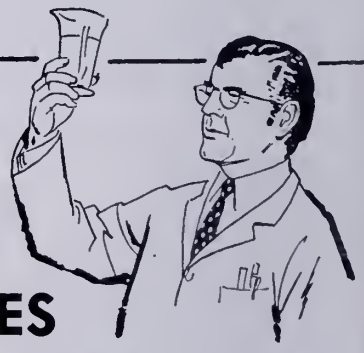
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There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.

For further information on this subject, the following references are provided:

1. Henry BW, *et al: Dis Nerv Syst 30*:675-679, Oct 1969.
2. Hollister LE, *et al: Arch Gen Psychiatry 24*:273-278, Mar 1971.
3. Claghorn J: *Psychosomatics 11*:438-441, Sept-Oct 1970.



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in psychoneurotic anxiety states with associated depressive symptoms

surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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Nutley, New Jersey 07110

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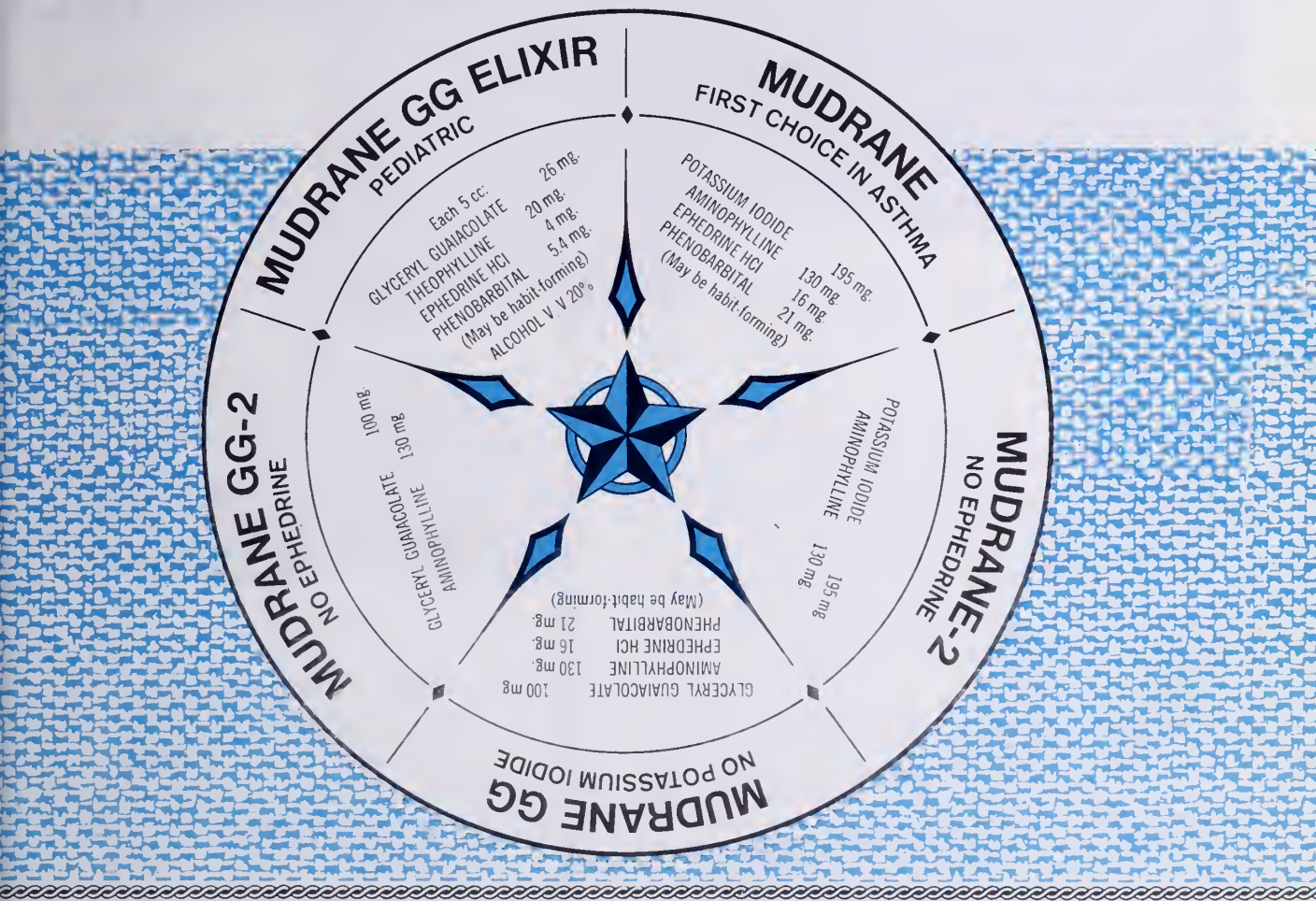
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The MUDRANES

Discreet formulations of four well regarded drugs for the relief of bronchial distress—Potassium Iodide, Glyceryl Guaiacolate, Aminophylline, Ephedrine with Phenobarbital (to lessen cardiac stimulation).



INDICATIONS: For the prompt symptomatic relief of bronchial asthma, emphysema and bronchiectasis. The Mudranes dilate the bronchi and liquefy mucus plugs. DOSAGE: Tablet; One tablet with a full glass of water 3 or 4 times daily as required. Divide tablet for child's dose. Elixir; Children, 1 cc for each 10 lbs. of body weight. May be repeated 3 or 4 times a day. Adult, one tablespoonful 4 times daily. All doses should be followed with a glass of water.

CONTRAINDICATIONS: Aminophylline/Theophylline is contraindicated in the presence of severe cardiac arrhythmias and patients with massive myocardial damage. Ephedrine, in presence of severe heart disease, extreme hypertension, and in hyperthyroidism. Phenobarbital, in porphyria and in patients with known phenobarbital sensitivity. Potassium Iodide, in pregnancy (to protect the fetus against possible iodine-induced depression of thyroid activity), in tuberculosis (produces gumma dissolution), and in acne; also in the presence of known iodide sensitivity. PRECAUTIONS: Aminophylline/Theophylline should be avoided in patients with massive myocardial damage and/or severe cardiac arrhythmias. In children, overdose may cause vomiting, cardiac arrhythmias, and severe agitation. Ephedrine should be used with caution in the presence of severe cardiac disease, particularly arrhythmias and angina pectoris; avoid in hyperthyroidism and severe hypertension. Phenobarbital may be habit-forming. Avoid overdosage. Potassium Iodide: Discontinue in the presence of skin rash, swelling of the eyelids and severe frontal headache. Long use may cause goiter. ADVERSE REACTIONS: Aminophylline/Theophylline may cause nausea, cardiac arrhythmias, and aggravate severe myocardial disease. It may cause headaches and tachycardia. Vomiting and dizziness are not uncommon. Ephedrine: In patients hypersensitive to CNS stimulation, ephedrine may cause nervousness, tachycardia, extrasystole and ventricular arrhythmias. May cause urinary retention, especially in the presence of partial prostatic obstruction. Psychoneurosis may be aggravated. Pre-existing anginal pain will be aggravated. Phenobarbital may produce severe skin rash. Avoid overdosage. May be habit-forming. Potassium Iodide may cause nausea. Over very long period of use, iodides cause goiter. Discontinue if patient develops skin rash, eye irritation, eyelid swelling, or severe frontal headache.

HOW SUPPLIED: Mudrane and Mudrane GG available in bottles of 100 and 1000 tablets; Mudrane-2 and Mudrane GG-2 in 100s; Elixir in pints and half-gallons.

Federal law prohibits dispensing without prescription.

WILLIAM P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA 23261



The 114th Annual Session of MASA passed into history at noon on Saturday, April 19. More unity and harmony prevailed than in some previous years, although there were differences of opinion, and rightly so, on some of the key issues.

The Constitution and Ordinances which have governed this body for more than a century underwent sweeping revisions. One might even say, if it were not for legal implications, that an entirely new Constitution and Bylaws was adopted—simplified and streamlined to enable this Association at long last to cope with 20th Century problems un-dreamed of even two decades ago.

This issue of *The Journal* contains a synopsis of actions taken by the College of Counsellors and House of Delegates, with pictorial highlights of the occasion.

***

The official transactions will be published as a supplement to the July issue of the *Journal.* Each member should inform himself of the changes which have been wrought and the structure and operation of this organization. Most of them have been designed for the express purpose of keeping the Alabama physicians untramelled and unfettered, to protect the patient and assure him the best medical care on the face of the earth, to enable MASA members to exercise their constitutional responsibilities as citizens without becoming vassals of the State.

Counsellors and Delegates were most complimentary in their remarks concerning the performance of the MASA staff and for this, the writer is most appreciative. The organization and operation of a three-day convention requires considerable planning and labor. There must be built into the planning great flexibility to cope with unexpected exigencies.

While there were minor slip-ups, the staff is pleased that no major problems arose which were unsolvable. One Birmingham physician, a member of the Host Committee, did make three trips to the airport before an honored guest finally arrived; the Jefferson County Society was embarrassed by the lack of quality and quantity at their affair; one or two speakers made last-minute cancellations requiring hasty substitutes. But problems of this nature were anticipated and remedies prepared in advance.

To the 875 persons who attended, the entire staff expresses its hope that you found your time well spent, that you were benefited by the business and scientific sessions and had a good time.

BUT...
MY FEW DOLLARS WON'T MAKE ANY DIFFERENCE



Thankfully, not everybody says that. We know different. Your dues, added to mine, and everybody else's dues, can make a difference. But, maybe you would rather go to work for the government? If not join us in 1975 . . . and bring along a friend.

AlAPAC

ALABAMA MEDICAL POLITICAL ACTION COMMITTEE

Post Office Box 6006

Montgomery, AL 36106

MESSAGE FROM THE PRESIDENT



Unity Is The Key To Success

E. Vernon Stabler, Sr., M.D.

The new year for the Medical Association of the State of Alabama is here. We have been fortunate in its past leadership. MASA has continued to have strong and capable officials. Garber Galbraith's year as president was outstanding. Our Board of Censors gave us wise and constructive administration. Now, newly elected officals start a new year of guidance and management.

We have the best organization at our Central Office staff we have ever had. Our task is clear – first, we must maintain the adminstrative excellence we have already attained. Secondly, we must recognize and solve the numerous problems our State Association faces. On the plus side, we have many accomplishments to be happy about. We have one of the very best insurance arrangements of any State in the union. In fact, many States are in serious trouble with liability insurance. We have our former leaders to thank for this inheritance. Our responsibility is to safeguard, protect and improve this coverage.

Our organization at staff level for continuing education, PSRO implementation, legislation guidance for both maintenance of good existing legislation and procurement of sound, progressive new legislation, is the finest to be found. Our health delivery system and State Health Department are in capable hands, soundly administered, though faced with serious problems of under-financing and under-staffing, especially at the county level. Our Public Relations Department with its journalistic output is the best organized and most productive in the State organization's long history. The newly elected officals of MASA inherit a strong active program. It is now up to us first, to maintain, and second, to improve all the functions within the range of our responsibilities.

The socioeconomic pressures are here – the question of continuing governmental encroachment into every facet of the medical field is ever present and threatening. Increasing attempt at bureaucratic control and the constant possibility of legislative reform faces us daily. These attempts by non-medical forces are not in accord with the highest art of medicine. These are but some of the problems we face.

A united cooperative body of all interrelated parts of the medical field is our goal. This solid force for protection of our sacred freedom of right to govern and control our profession is of paramount importance to each one of us.

We promise to be actively on watch, carefully evaluating and constantly alerting each individual physician to each threat.

It will be necessary often to ask you to serve on one or more of our many necessary committees. Active committe work is very important; an inactive member would be of very little help. We want may involved and know you will accept assignments willingly, carrying them out with growing diligence and purpose. United and cooperative work is the key to our success. You need constantly to read the *Alabama MD Newsletter* sent each week to keep fully informed. The *AMA Newsletter* and the State Medical *Journal* will be vital to you, if each is to be well informed.

As your president, I promise to do all that is within my power to be worthy of the honor and confidence bestowed on me by this Association.

THE MEANING OF SUCCESS

That man is a success who has lived well, laughed often and loved much;

Who has gained the respect of intelligent men and the love of children;

Who has filled his niche and accomplished his task;

Who leaves the world better than he found it whether by a perfect poem or a rescued soul;

Who never lacked appreciation of earth's beauty or failed to express it;

Who looked for the best in others and gave the best he had.

Robert Louis Stevenson

No other Malpractice Insurance Coverage fits the Doctors of Alabama so well . . .

The premium cost you pay for the Wausau Special Malpractice Insurance Policy will be based **only** on Alabama loss experience. So you don't pay to help cover losses in such "claims conscious" areas as Florida (Dade County), New York or California. No other insurance company has consented to these terms. Which is just one of the ways you benefit yourself — and the entire Alabama medical community — when you subscribe to this coverage. For information on additional benefits, contact **MASA Insurance Department, 19 South Jackson Street, Montgomery, Alabama 36104. Or call (800) 392-5668 toll free.**



THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA · 1873 ·

editorials
editorials

The Changing Of The Guard

Two members of this Association who rose to positions of high leadership in its hours of greatest need delivered their gavels of authority into other hands at the closing of the 1975 Annual Session.

For John Murphy Chenault, M.D., of Decatur, the action marked the climax of 15 years of distinguished service as a member of the State Board of Censors, the last eight years as its chairman.

To list the countless services and sacrifices made on behalf of this Association by Dr. Chenault would require more space than can be provided in this publication. He came up through the ranks from service to his county society to the highest office which it could award, winning election to the Board of Censors in 1960.

That Annual Session was held in Mobile, when 98 Counsellors and 111 Delegates voted for his election. (It is disturbing to note that only 77 Counsellors and 84 Delegates were in authority when he surrendered the reins in Birmingham 15 years later—a shocking commentary on the lack of interest in Association affairs by an organization which has grown by 34% during the period.)

Dr. Chenault saw Medicare, Medicaid and a plethora of other government give-away programs cascade into the health field. Some he supported in principle; many he opposed for the same reason. He left no stone unturned to work toward the defeat of those measures, which he considered inimical to the patient's interest or the advancement of Medicine.

If he could not defeat a bill, he worked to amend it; if he could not amend it, he sought to implement with a minimum of upheaval. When a health law, no matter how irrational, was finally enacted, Dr. Chenault accepted it as the law of the land, but that did not mean that he would not be working for its repeal or amendment at the next session of Congress or the Legislature.

No one will ever deny that Dr. Chenault was a strong leader. He guided the destiny of this Association through parlous times with a firm hand. While he could be stern with malefactors, he strove to be fair, kind and courteous to those who merited his sympathy and support. The high esteem in which he is held was manifested by the standing ovation which he received upon receiving the most honored award of this Association at the conclusion of his service.

The Association also is indebted to its Immediate Past President, J. Garber Galbraith, M.D., of Birmingham, truly one of the most admired practitioners of his profession in the entire county.

Dr. Galbraith won and held the respect not only of his fellow physicians, but of laymen everywhere who had occasion to know him.

As President, he brought an atmosphere of genuine dignity to his office and he enhanced the image of physicians, particularly among State legislators, where it had ebbed to considerable extent.

During the 60s, Dr. Galbraith was chairman of the Association's Committee on the Aging and the Indigent, a forerunner to the Committee on Socio-Economics. He used his tremendous energy and influence to make the Kerr-Mills legislation work, but for lack of adequate funding this program died almost in its infancy and was succeeded by Medicare and Medicaid.

Dr. Galbraith worked to shape the course of the new program in Alabama and that it was far more successful here, and better funded, than in many other states is a tribute to his efforts.

As Immediate Past President, Dr. Galbraith will continue to serve the Association for one year as an ex officio member of the Board of Censors and its Subcommittee on Association Affairs. If he chooses, he will then be eligible for another five year term on the Board of Censors. It will be interesting to see whether the physicians of Alabama can restrain Dr. Galbraith from dashing into that well-earned pasture.

Putting First Things First

Future historians perusing the annals of the Medical Association of the State of Alabama searching for significant milestones to its successes and failures will inevitably select the decade just past as the most crucial. Health care, particularly those comprising medical services and hospitalization, became national issues, although the voters perhaps did not realize it nor intend it to be that way.

Health care has now become, by legislative fiat, a basic human right. No physician will argue with this concept. But health care is not an endowment such as those claimed in the Declaration of Independence and guaranteed by the Bill of Rights amendments to the United States Constitution.

It has long been established that Government should and must maintain an environment conducive to good health and to this end, the physicians of Alabama blazed the trail to create and support the public health program.

Heralded as may be its legislative prowess, the energies of this Association have not been spent in an aggrandizement of physicians as individuals, but in espousal of the good health of the population. House calls antedated hospitals by two centuries, inadequate as they may have been by today's standards. Before there were ambulances, there were physicians on horseback, or in buggies laden with crude devices to treat wounds and broken bones.

It appears that the grasping politician has just discovered humanitarianism. The halls of Government echo with officeholders' cries for national health insurance and such other largess as will perpetuate them in office, bankrupt the nation, shackle the delivery of health and medical services to bureaucratic directives, but assures no one of better health than they have today.

If we cannot share the wealth, how can we share good health? If the existent system of medical care has been as bad as the politicians claim, then it must be rationalized that our elderly citizens, rich and poor, achieved their longevity by accident or despite the best effort of their doctors.

A New President At The Helm

Dr. Stabler Issues Challenge To Membership

For the benefit of the hundreds of physicians of Alabama who were not privileged to be present at the closing ceremonies of the 114th Annual Session, the challenging remarks of President E. Vernon Stabler, Sr., M.D., delivered immediately following his installation, are published herewith:

"My fellow physicians:

Our new year of service for the State of Alabama has begun! Problems! Challenges, on every side! Together we must face and solve these, insisting on our position of leadership in maintaining our system of medical care.

Legal pressure and political dictums threaten to inundate our whole field, but with concentrated awareness, on the part of each of us, working together, we can hold our profession in its rightful place. As the most knowledgeable body of people in the whole range of medical services, surely we are best fitted to judge and control the medical care for the citizens of Alabama.

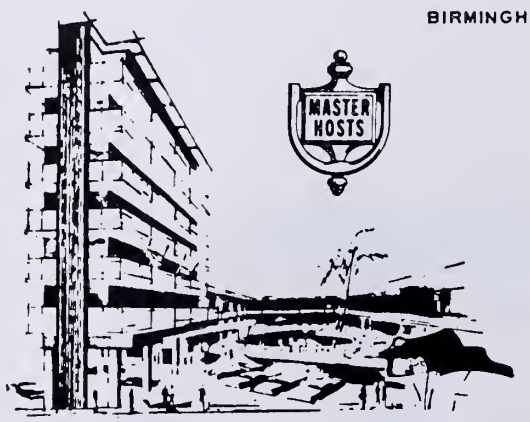
The responsibility is properly ours to give our people the finest possible health service with the fewest incumberances placed upon it—and upon ourselves.

For this, I beg your support not just with a trite 'yes,' but with a prompt and willing response from each of you as you are called upon to carry a part. I'll do my best with your aid. Will you help me? I look forward to working with you."



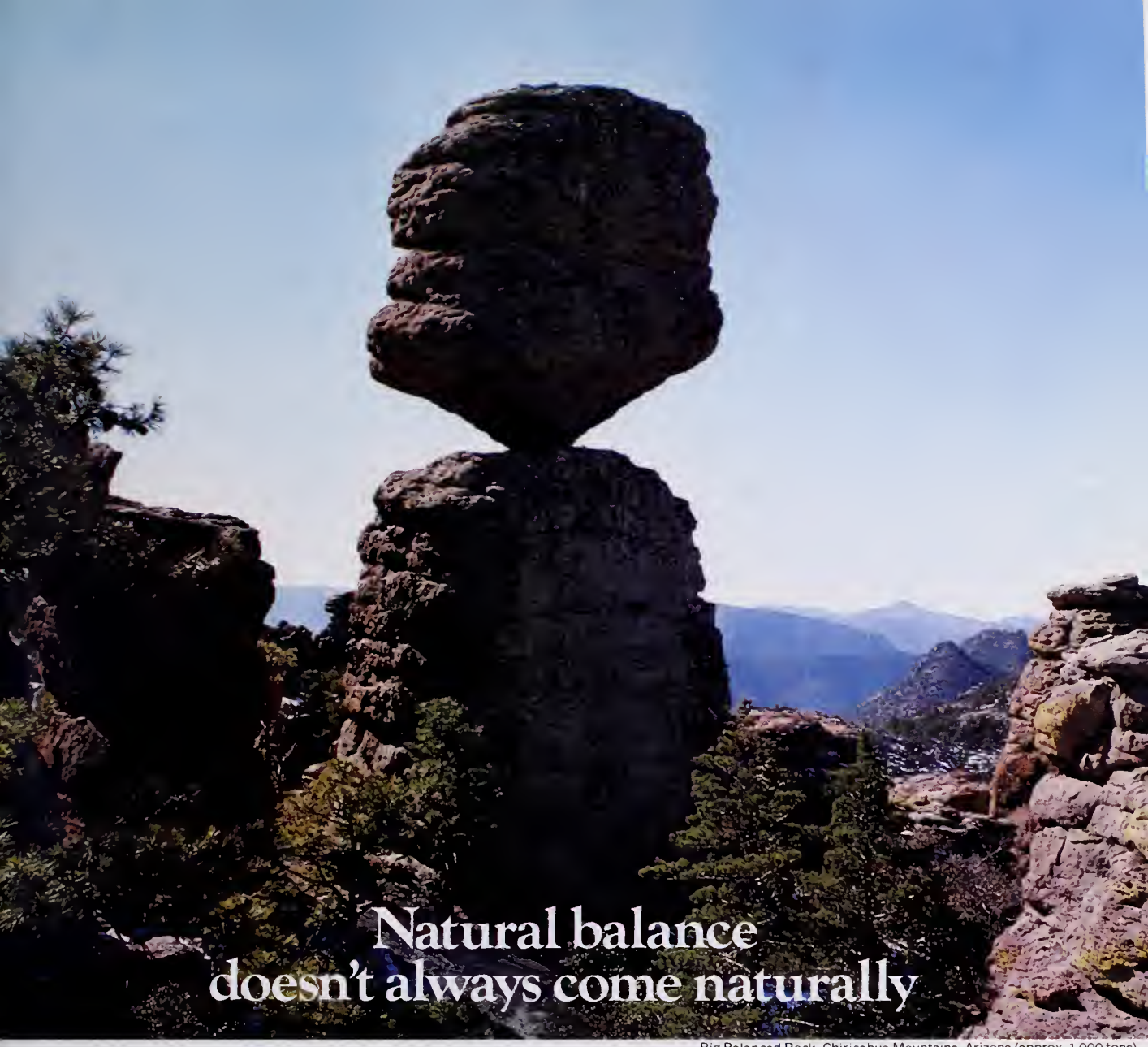
Dr. E. Vernon Stabler, Sr., (left), newly installed President of MASA, receives Presidential Gavel from out-going President J. Garber Galbraith.

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"Everybody Is Somebody At The Guest House"



Big Balanced Rock, Chiricahua Mountains, Arizona (approx. 1,000 tons)

- Found useful in the management of vertigo* associated with diseases affecting the vestibular system.
- Can relieve nausea and vomiting often associated with vertigo.*
- Usual adult dosage for Antivert/25 for vertigo:* one tablet t.i.d.
- Also available as Antivert (meclizine HCl) 12.5 mg. scored tablets, for dosage convenience and flexibility.
- Antivert/25 (meclizine HCl) 25 mg. *Chewable* Tablets for nausea, vomiting and dizziness associated with motion sickness.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

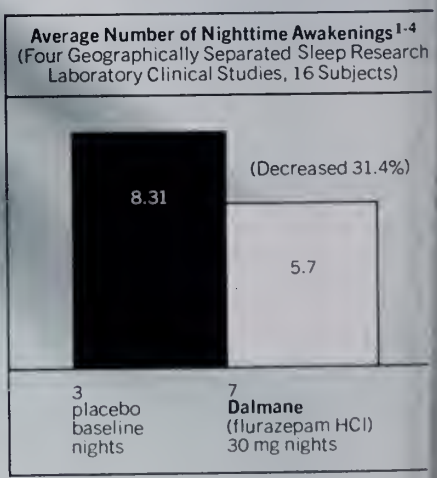
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A division of Pfizer Pharmaceuticals
New York, New York 10017

Antivert®/25
(meclizine HCl) 25 mg. Tablets
for vertigo*

Would sleep with fewer nighttime awakenings benefit your patients with insomnia?

Highly predictable results for your patients with trouble staying asleep...

...can be obtained with Dalmane (flurazepam HCl). As shown below, Dalmane significantly reduces nighttime awakenings:[1-4]



And for those with trouble falling asleep or sleeping long enough...

...Dalmane (flurazepam HCl) also delivers excellent results. Clinically proven in sleep research laboratory studies: on average, sleep within 17 minutes that lasts 7 to 8 hours.[5]

Dalmane (flurazepam HCl) is relatively safe, seldom causes morning "hang-over"...

...and is well tolerated. The usual adult dosage is 30 mg *h.s.*, but with elderly and debilitated patients, limit the initial dose to 15 mg to preclude oversedation, dizziness or ataxia. Evaluation of possible risks is advised before prescribing.

REFERENCES:

1. Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington DC, May 3-7, 1971
2. Frost JD Jr: A system for automatically analyzing sleep. Scientific exhibit at the 24th annual Clinical Convention of the American Medical Association, Boston, Nov 29-Dec 2, 1970; and at the 42nd annual scientific meeting of the Aerospace Medical Association, Houston, Apr 26-29, 1971
3. Vogel GW: Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ
4. Dement WC: Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ
5. Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ

Before prescribing Dalmane (flurazepam HCl), please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

Depend on highly predictable results with

Dalmane®
(flurazepam HCl)

One 30-mg capsule *h.s.*— usual adult dosage (15 mg may suffice in some patients).
One 15-mg capsule *h.s.*— initial dosage for elderly or debilitated patients.



specifically indicated for insomnia

Objectively proved in the sleep research laboratory:

- **sleep with fewer nighttime awakenings**
- **sleep within 17 minutes, on average**
- **sleep for 7 to 8 hours, on average,**

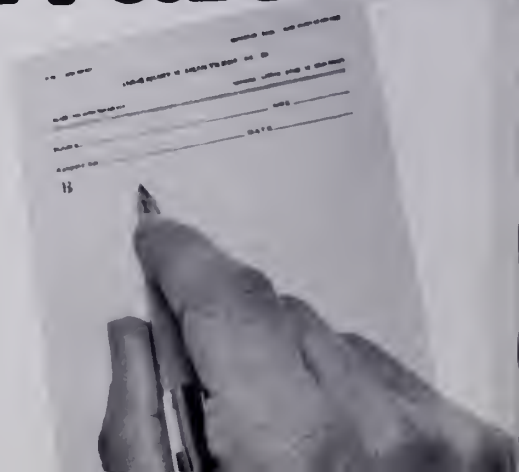
with a single *h.s.* dose.

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Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110



Bioequivalence



the weight of scientific opinion:

If the pharmacist substituted a chemically equivalent drug for the one you have specified for your patient—could you be certain of that product's safety and effectiveness simply because the chemical content was the same?

Definitely not, unless bioequivalence tests and other quality assurance checks had been conducted. The pharmaceutical industry and many scientists have maintained this position for years, but others have questioned it. Now the Office of Technology Assessment of the Congress of the United States has reported on the issue in its Drug Bioequivalence Study.*

Here are a few definitive statements in the O.T.A. report:

"...the problem of bioinequivalency in chemically equivalent products is a real one. Since the studies in which lack of bioequivalence was demonstrated involved marketed products that met current compendial standards, these documented instances constitute unequivocal evidence that neither the present standards for testing the finished product nor the specifications for materials, manufacturing process, and controls are adequate to ensure that ostensibly equivalent drug products are, in fact, equivalent in bioavailability.



"While these therapeutic failures resulting from problems of bioavailability were recognized and well documented, it is entirely possible that other therapeutic failures and/or instances of toxicity that had a similar basis have escaped attention."

The Pharmaceutical Manufacturers Association supports federal legislative amendments that would require manufacturers of duplicate prescription pharmaceutical products, subject to new drug procedures, to document:

(a) chemical equivalence; and

(b) biological equivalence, where bioavailability test methods have been validated as a reliable means of assuring clinical equivalence; or

(c) where such validation is not possible, therapeutic equivalence.

In addition, the PMA supports federal legislation that would require certification of all manufacturers of prescription products before they could start in business, annual inspections and certification thereafter, and strict adherence to FDA regulations on good manufacturing practices.

The overall quality of the United States drug supply is excellent. But only a total quality assurance program, envisaged in these and other policy positions adopted by the PMA Board of Directors in 1974, can bring about acceptable levels of performance by all prescription drug manufacturers and thereby assure the integrity of your prescription...

P-M-A
Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D.C. 20005

*Copies of the complete report on Drug Bioequivalence may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

protecting the integrity of your prescription

Pictorial highlights of the 114th



Dr. Carl Grote, Huntsville, (right) was the winner of the all-expense paid trip to the Rhine. His name was drawn during the Awards Dinner on Friday night and Dr. Galbraith presented the prize to him.



Dr. Jerry W. Sheffield, Piedmont, reviev scientific program for Friday morning sessio



Dr. James Sammons, AMA Vice-President, addressed over 175 physicians who gathered for the orientation program.



Oath of office is administered by Dr. Galbraith to the new officers during Saturday's business session.



Members of Reference Committee D are (left to right) Drs. Ralph N. Wesley, Gadsden, William H. Curtwright, Mobile, C. P. St. Amant, Chairman, Atmore, and James Poteet, Montgomery.

Annual Session

Dr. Malcolm Todd, AMA President, (right) chats with guest, Justin Wilson, prior to ALAPAC luncheon.





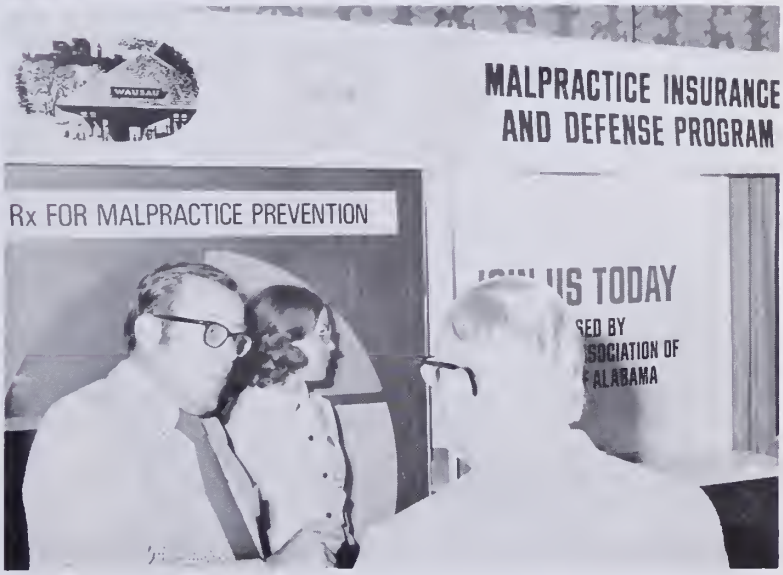
Dr. John Chenault, Decatur, (left) was recipient of the Samuel Buford Word Award. Dr. Wilfred Yeargan, Tuscaloosa, was the presenter.



Ray Bohl, Vice President, Special Accounts Division, Employers Insurance of Wausau, spoke on "An Overview Of Malpractice" during Thursday's orientation program.



Among the first-day attendees were (left to right) Dr. Sammons, Guest Speaker Dr. Robert Moreton, Texas Cancer Center, Houston, Dr. C. T. Moss. Jr., Huntsville and Dr. Stabler.



The session attracted a capacity of 40 exhibitors. Mr. Bud Lindemann, Underwriting Manager, Special Accounts, Employers Insurance of Wausau, (left) presented the MASA/Wausau story to many of those in attendance.

The Jerome Cochran Lecture

Our Federated Individuality

Today...in paying our tender respects to the memory of Doctor Jerome Cochran...we can take a tender glance, also, at the era to which he contributed his talents...and helped others contribute.

Doctor Cochran...truly the pivotal figure in the history of Alabama medicine...left his warm and solid imprint on the public health of your State...as well as on your Association.

I wonder what he would think today...seeing the degree to which public affairs – including health – have become more and more focalized in Washington.

Aside from the Civil War and Reconstruction, his was an age in which most government was not too far *from* the people, in the geographical sense...or too far *above* them, in the human sense. Government and the governed each knew where they stood.

The Victorian Age in which Doctor Cochran lived is associated with a certain measure of order...or, at least, certain patterns.

Our own age has many nicknames, partly because it lacks a coherent pattern or clear image. It has been called the Age of the Mushroom Cloud...and the Winter of Man's Discontent. Fervent young people sing of it as the Age of Aquarius...and Jean-Paul Sartre has dubbed it the Age of the Assassin.

I myself think it can be called an *Age of Contradictions.* Just consider some of them.

Man, in our time, has figured out the Dead Sea Scrolls...and the Linear B script of the ancient Minoans... but is puzzled by routine U.S. government forms.

Man has finally ascended Mount Everest ...but the average office worker waits for an elevator to go just one flight down.

We Americans can walk the valleys of the moon...but not the nighttime streets of our own cities.

We can negotiate control of the nuclear bomb...but seem powerless against the ordinary handgun.

On problems that need correction, we get far more *publicized talk* than *public- spirited action.*

For example, Congress in 1973 held investigative hearings on the oceans of Federal paperwork required of the people. Transcripts of the hearings run to more than 2,000 pages. Where are the solutions, though? Mainly *on paper!*

You and I are among the principal toters and waterboys of the paperwork load...but let me show how this Age of Contradictions strikes even closer at our professional lives.

What contradiction could be greater than the prospect of health care being on the dinner plate of a government that cannot digest what it has already gobbled down?

The government, for instance, cannot properly handle the mails, one of its original functions...yet feels qualified to interfere in the complexities of health care, a field never envisioned for it by the Founding Fathers...including Thomas Jefferson, who said, somewhat cynically:

"Was the government to prescribe to us our medicine and diet, our bodies would be in such keeping as our souls are now."

A bill introduced by an Illinois Congressman would allow private enterprise to deliver mail in competition with the U.S. Postal Service. Why not?, he figures – since it does better than the Postal Service in delivering parcels.

But measures that would restrict or reduce the private thrust of health care are also pending in Congress...or have been passed.

I need not dwell on the Kennedy-Corman tossed-salad recipe for National Health Insurance... the public-utility features of the National Health Planning and Resources Development Act of 1974... the HMO Act of 1973...and the Rogers health-manpower bill.

You are familiar with them.

What I prefer to do is explore the attitudes that have caused the sudden downpour of Federal health-care legislation...and consider, with you, the attitudes that we should bring to it.

It is easy to attribute that downpour to a conscious pursuit of despotism—and, indeed, the results can be truly despotic.

It is easy to see the spate of health-care measures as a conspiracy—and, indeed, there is a curiously strong alliance of attitude among various makers of law, molders of opinion and labor unions.

But in assuming tyranny and conspiracy, we can *mis*read the situation...and *mis*direct our energies and actions.

We must recognize that political developments in American can occur rather vaguely, impulsively and even anonymously...and without a fixed pattern or clear reasons.

We must recognize also that the most dangerous trends can be well-intended...as well as opportunistic.

In short, they happen for a variety of reasons. Unfortunately, they can get out of control before society is sufficiently aware of what is happening.

Let me paint a rough picture of how a trend can develop.

First...accusations about a social condition appear in books with lurid titles and in articles with eye-hooking headlines. Accusations are big business in today's world.

They are laced, of course, with plenty of statistics... which always can be putty in the hands of anybody with imagination and drive.

The condition that is under fire may have been around a long time...and may be improving considerably.

But the accusers are rarely inclined to qualify what they say. They find an extra thrill in uncovering a condition that has long been fallow...and they disregard the improvements.

The attacks win readers and listeners...and the attention stimulates further attacks. What I call the *GLIBera*



"We are confronted by legislative and regulatory responses to a momentum for ill-defined change... rather than well-defined needs."

By Malcolm C. Todd, M.D., F.A.C.S.
President
American Medical Association

Establishment gratefully spots a cause it can champion... and avidly discusses it at cocktail parties, at meals in exotic restaurants, on TV talk shows and in other proper settings for social tension.

In short order, the condition receives the highest honor that any problem can attain: the rank of crisis. That distinction may no longer be rare, but it still has prestige.

To qualify as a crisis, , a condition usually compensates in sensationalism for what it lacks in substance.

Washington's planners and lawmakers, of course, know how to act in the face of a crisis. They nudge it along. How do they nudge it?

Philosopher Michael Novak gives an answer in his book, *The Experience of Nothingness*... and I quote:

"Americans wish to believe that their leaders control events. The fact is that the chief role of leadership is that of symbolic reassurance. Leaders do not do everything. But they need to give the appearance of being hard at work, on top of events, and in control.

Midnight meets are held, urgent news conferences are called, dramatic trips are made—in order to make leadership visible rather than to make it effective. Most of the serious problems of our society are beyond the powers of our leaders, but the myth of leaders cutting huge swathes in national problems seems important to our sense of meaning." Unquote Mr. Novak.

Laws can be part of the masquerade that he describes.

Faced with frustration and futility in certain areas, such as crime and poverty, Congress overcompensates by pushing extra hard in other areas—such as health care.

Recurrently accused of moving too slowly in some areas, Congress overcompensates by moving too fast in other areas—of which health care is again an example.

It is easy—and even tempting—to lash out at certain members of Congress for arbitrary, headlong actions that directly affect you and me as physicians.

But let me again point out that anonymous influences help shape developments.

It has been said that many Senators, to some extent, are simply the facecards of their administrative assistants and other staff members.

Eric Redman...himself a former staffer of Senator Warren Magnuson of Washington...says in his book, *The Dance of Legislation* (quote):

"In the postwar era, the Senate staff has grown to approximately 3,000 individuals... Anyone who knew the Senate would know that to ignore the role of staff is to ignore not only Senate reality but the key reason why the Senate is still capable of vying with the President for legislative leadership (the same could be said, of course, for the House of Representatives)." Unquote Eric Redman.

Anonymous power is wielded not only by Congressional staffs but by the administrative functionaries who draft the regulations for implementing laws—such as the regulations requiring post-admission review of Medicare and Medicaid hospitalizations.

As the late C. Wright Mills...a left-wing cult figure in American sociology...observed (quote):

"The executive bureaucracy becomes not only the center of decision but also the arena within which major conflicts of power are resolved or denied resolution. 'Administration' replaces electoral politics; the maneuvering of cliques...replaces the open clash of parties." Unquote.

So, summing up, I would say that we *face* a somewhat face*less* situation in Washington... as we strive to cope with it.

We are confronted by legislative and regulatory responses to a momentum for *ill-defined* change ...rather than to *well-defined* needs.

We are confronted by a nebulous bureaucracy which...in trying to play Hercules...would make an Augean stable out of a health care system that generally is pretty clean.

How can we best counter the cureless cures for an uncritical crisis?

How can we best cope with a rather elusive and invisible, albeit powerful, government...without ourselves becoming vague and indistinct?

I will offer various answers...but all of these are tributaries of one basic answer.

That fundamental answer lies *in each of us physicians as individuals*...and *because* we are individuals.

Unlike government, we doctors are NOT an institution.

Your American Medical Association and mine is not so much an institution...as it is a *federation of individuals.*

Institutionalism...the windowless grey walls of bureaucracy...is anathema to our very nature as physicians.

Individuality...and the capabilities and character it repre-

Jerome Cochran Lecture

Our Federated Individuality

sents...are precious qualities not only in our eyes...but in the eyes and hearts of the people whom we serve.

For contrary to the notions of those government planners who would depersonalize and mechanize health care, most Americans look to it for individuality...as well as for quality.

Most Americans already are tired of being the mob scene in government's adventure film.

They are disillusioned with the social programs that galloped forth on blazing saddles. According to a Louis Harris survey, only 23 per cent of the people—after four decades of such programs—think the Federal government has improved their lives.

They would hardly want medicine to become a breadline for which they pay huge taxes...and in which they wait for inadequate care.

They would hardly want their own doctor to be demeaned like the Swedish doctor who...after refusing to treat a boy with a nose bleed promptly because it was lunch time...explained to an American visitor:

"Professionals who are paid and treated like factory workers, work like factory workers."

In being individuals...and in giving our individuality...we American doctors have the basis of a common cause with the American people.

At a time when much is being said about the alienation of modern man, each of us—as a physician—is a very model of the individual direction which people seek to reinstate within their own lives.

How do we, or can we, make that individuality work for the best ...with the help of our AMA federation of individuals?

Our assertion and manifestation of it should be considered in terms of four relationships: our relationships to medicine...to our patients ...to society...and to each other. Let us examine each of these in turn.

In our ties with medicine itself, each of us must overcome any complacency we may have toward our knowledge and skills.

> "We constantly must see our patients as human beings rather than as x-ray photographs. We must see the doctor-patient relationship as something shared with them... rather than impressed upon them."

Complacency belongs to institutionalism...but not to genuine individualism...which implies an abiding will to make the best of one's talents.

A principal way to counteract the dangers of any self-contentment is to pursue continuing education ...on which the AMA has been placing great stress.

Our federation has granted its Physician's Recognition Award to more than 50,000 doctors for their 150 credit hours of continuing education.

This year the AMA is introducing a series of regional, weekend programs of such education... with Florida and Virginia as two of the four program sites.

It is significant, also, that you have voted to make continuing education a mandatory qualification for membership in your Association.

Such attitudes and actions—unmatched in any other profession—help validate our credentials with the public.

They help show the people that our interest is in serving rather than self-serving...and they further weaken the government's case in asking to serve their health-care needs.

But in strengthening our rapport with the patients of America, we need to pursue not only *continuing education* but *constant compassion.*

We constantly must see our patients as human beings rather than as X-ray photographs. We must see the doctor-patient relationship as something *shared with* them...rather than *impressed on* them.

We are familiar with evidence that lapses in that relationship...lapses in mutual understanding... are perhaps the major cause of malpractice suits. The near absence of suits here in Alabama is in part a tribute to your personal ties with your patients.

Malpractice actions are just the terrible sore at the surface of the human relations problem. We can assume that for every plaintiff goaded by a failure in the doctor-patient relationship, there are many other patients who have sensed the same failure.

Yet, the doctor-patient bond is our *basic* superiority... and, indeed, our *greatest* superiority...over government management of health care. We physicians, as individuals, have the ability to feel...whereas government, as an institution, does not.

We must strengthen our bond not only with patients singly...but with patients collectively.

We must recognize that in a country such as ours, public opinion is shaped not only by personal experience...but by impressions of what others experience.

A patient who is pleased with the personal attitude of his own physician may be led to believe that his doctor is the exception rather than the rule...and that the rules, the system, should be changed.

Here again, we cannot afford to be complacent. We must work for the good of ALL the patients of America...and not solely for the specific patient, important though he is. In this era of rather invisible government, our own visibility must be beyond reproof.

So it is crucial that...through the AMA...we press for our own National Health Insurance program ...for temporary health insurance to protect the jobless...for valid ways to improve the distribution of health manpower. We must take arrogant, antisocial Federal regulations to court—as the AMA, for the first time in its history, has done...in contesting those that require post-admission review in Medicare/Medicaid cases.

All of the socio-economic actions of the AMA have a common premise: that the needs and aspirations of medicine and society can best be served by what helps both.

Some of you, as individuals, may disagree with our federation's stand on various public issues...more so, perhaps, than in times past.

But the relationship between you and our federation is really the relationship between you and your 172,000 fellow members.

With the growth in specialization, types of practice and types of professional activity, our membership is more diffuse than it was...and has a greater diversity of outlook.



"In the face of all the diffusion and confusion, there is only one course that the AMA can pragmatically pursue. And that is to strive for a consensus...for a middle ground between the inevitable opposites and extremes."

The issues we face are generally more diffuse, too, than those of the past–partly because of circumstances I described earlier: the vague, anonymous and ambiguous ways in which laws and regulations are developed.

In the face of all the diffusion and confusion, there is only one course that the AMA can pragmatically pursue. And that is to strive for a consensus...for a middle ground between the inevitable opposites and extremes.

Obviously, such a course confirms an old axiom: Try to please everybody...and you may end up pleasing nobody.

Nevertheless, we cannot–in good faith and good sense –alter this course. The best that we can do is make sure that the consensus is real...that it fairly and accurately synthesizes all views...including your own.

Our collective opinion is a confluence of the delegate votes at each level of the federation...but any individual member can feed the stream.

As Robert D. Moreton, M.D., vice-president of the University of Texas at Houston...and an AMA delegate... had noted...and I quote:

"At the June (1973) meeting of the AMA in New York City, the Texas delegation introduced 13 resolutions. All of them were authored by individual physicians and presented initially to their county societies. Five of them were adopted by the AMA and now represent the positions of the AMA." Unquote.

Some of you...while acknowledging the various ways in which our individuality does or should assert itself...may still wonder how effective it can be against Federal intervention and intimidation.

Without minimizing that danger, let me point to some signs that the fear and distrust of Federal power are extending beyond what is called Middle America.

They are being voiced from the left of the political spectrum...as well as from the right.

Abhorence of runaway Federal spending...which is the food and liquor of Federal power... has been expressed by officials who would handle the money...including the President.

The liberal 94th Congress, in the face of economic and fiscal realities, has been proceeding more gingerly than many observers had expected.

A Senator generally regarded as a strong liberal said in his February *Newsletter* to his constituents, "Public spending is not only a more expensive way to solve serious social problems than private action but sometimes it is far less effective." That Senator is William Proxmire...of Wisconsin.

So there are hopeful signs from the outside...but our greatest source of hope lies in the following words of Ralph Waldo Emerson:

"The antidote to (the) abuse of formal government is the influence of private character, the growth of the Individual ...the appearance of the wise man, of whom the existing government is but a shabby imitation."

In the spirit of those words, we must show that our individuality as physicians can work for the good of everyone.

In the spirit of Emerson's words, we must not only resist the pestilence of supergovernment ...but offer antidotes to it.

We must reject any notion that *avoidance* of government action will permit the *voids* in the financing and delivery of care to persist. We must work together to fill those voids.

In so doing, we shall be honoring the spirit not only of Ralph Waldo Emerson...but of his noble contemporary whom we memorialize today...Doctor Jerome Cochran.

I have referred to the times in which we live as an Age of Contradictions.

But I firmly believe that we physicians can bar those contradictions from medical care–by being in harmony with our patients...with the people...with each other...and within our own hearts.

WANTED: PHYSICIAN IN ADJUDICATIVE MEDICINE, Veterans Administration Regional Office, Montgomery, Alabama. Equal Opportunity Employer, Position in Federal career civil service at grade GS-12, beginning salary $23,998 per annum, Liberal fringe benefits. Regular 40-hour week office work. Reply to O. N. Frederick, Personnel Officer, VA Regional Office, 474 South Court Street, Montgomery, Alabama 36104, telephone 265-5611, ext. 205.

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So, if you need help in filing a claim, call Blue Cross and ask for the professional relations person in your area. They'll probably solve your problem before it even becomes one.

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Desiccated animal gland thyroid products can vary in potency from batch to batch.

Because iodine content rather than biological assay is used to measure the standard of many desiccated thyroid products, biologic activity can vary from batch to batch. Even when biologic assay is employed, biologic activity can only be approximated.



1 It is recognized that T_4 and T_3 content in desiccated thyroid and thyroglobulin varies from animal to animal, by animal species, geography, and animal diet.

2 Of therapeutic concern: In addition to varying amounts of T_4, desiccated thyroid may contain varying amounts of T_3, a potent compound with rapid onset and fleeting action that can produce metabolic surges.

3 Even when kept under proper storage conditions, desiccated thyroid deteriorates more rapidly than the synthetic hormone.

4 The "usual maintenance dose" for the widely prescribed desiccated thyroid is "from 1 grain to 3 grains per day, but it may vary, in individual patients from 1/2 grain to 10 grains."[1] The "usual maintenance dose" of the most widely prescribed thyroglobulin (which is also a desiccated thyroid product) is "0.5 to 3.0 grains daily."[2]

1. Armour Thyroid (Tablets). 1975 Physicians' Desk Reference. p. 561.
2. Proloid® (thyroglobulin). 1975 Physicians' Desk Reference. p. 1575.

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at the cellular level, thereb
providing a physiologi
source and amount of T3 t
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therapy. Because the onset o
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3 SYNTHROID (sodium levothyroxine
products have a longer and more
reliable shelf life than Thyroid U.S.P.
when kept under the same proper
storage conditions. There is no animal
protein present in SYNTHROID products.

4 A recent study of 44 patients with
hypothyroidism indicates that
89 percent of the patients were
maintained with doses of L-thyroxine
(SYNTHROID) between 100 mcg. and
200 mcg. (0.1 mg. and 0.2 mg.) per day.[3]

3. Stock, J.M., Surks, M.I., and Oppenheimer, J.H.: Replacement dosage of L-thyroxine in hypothyroidism. A re-evaluation. New Engl. J. Med. *290*:529-33, 1974.

Eliminates many of the uncertainties of desiccated thyroid therapy.

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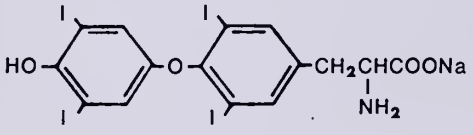
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Synthroid Tablets—for oral administration
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Description

SYNTHROID (sodium levothyroxine) **Tablets** and SYNTHROID **Injection** contain synthetic crystalline sodium levothyroxine (L-thyroxine). L-thyroxine is the principal hormone secreted by the normal thyroid gland.



Sodium Levothyroxine

Actions

SYNTHROID (sodium levothyroxine) **Tablets**, taken orally, provide hormone that is readily absorbed from the gastrointestinal tract. SYNTHROID **Injection** is effective by any parenteral route. Following absorption, the synthetic L-thyroxine provided by SYNTHROID products cannot be distinguished from L-thyroxine that is endogenously secreted. Each is bound to the same serum proteins and each exhibits a six to seven day circulating half-life in the euthyroid individual.

Both SYNTHROID products will provide L-thyroxine as a substrate for physiologic deiodination to L-triiodothyronine. Therefore, patients taking SYNTHROID products will demonstrate normal blood levels of L-triiodothyronine even when the thyroid gland has been surgically removed or destroyed by radioiodine. Administration of levothyroxine alone will result in complete physiologic thyroid replacement.

Indications

SYNTHROID (sodium levothyroxine) products serve as specific replecement therapy for reduced or absent thyroid function of any etiology. SYNTHROID **Injection** can be used intravenously whenever a rapid onset of effect is critical, and either intravenously or intramuscularly in hypothyroid patients whenever the oral route is precluded for long periods of time.

Contraindications

There ere no absolute contraindicetions to SYNTHROID (sodium levothyroxine) therapy. Relative contreindications include ecute myocerdial infarction, uncorrected adrenel insufficiency end thyrotoxicosis. (See WARNINGS)

Warnings

Petients with cardiovascular diseases warrent perticulerly close ettention during the restoration of normal thyroid function by eny thyroid drug. In such ceses, low initial dosage increased slowly by smell increments is indiceted. Occesionelly, the cardiovesculer capacity of the petient is so compromised thet the metebolic demands of the normal thyroid stete cennot be met. Clinical judgment will then dictate either e less-then-complete restoretion of thyroid stetus or reduction in thyroid dosage.

Endocrine disorders such as diebetes mellitus, edrenal insufficiency (Addison's disease), hypopituiterism and diebetes insipidus ere chereterized by signs end symptoms which may be diminished in severity or obscured by hypothyroidism. SYNTHROID (sodium levothyroxine) therapy for such petients mey aggrevete the intensity of previously obscured symptoms end require appropriete adjustment of therepeutic meesures directed et these concomitent disorders.

Thyroid replacement may potentiate the effects of anticoagulants. Patients on anticoagulant therapy should have frequent prothrombin determinations when instituting thyroid replacement to gauge the need to reduce anticoagulant dosage.

Precautions

Overdosage with any thyroid drug may produce the signs and symptoms of thyrotoxicosis, but resistance to such factitious thyrotoxicosis is the general rule. With SYNTHROID (sodium levothyroxine) **Tablets**, the relatively slow onset of action minimizes the risk of overdose but close observation in the weeks following institution of a dosage regimen is advised. Treatment of thyroid hyperactivity induced by oral medication is confined to interruption of therapy for a week, followed by reinstitution of daily therapy at an appropriately reduced dosage.

Adverse reactions

Adverse reactions are due to overdose and are those of induced hyperthyroidism.

Dosage and administration

For most adults, a final dosage of 100 mcg (0.1 mg) to 200 mcg (0.2 mg) of SYNTHROID (sodium levothyroxine) **Tablets** daily will restore normal thyroid function and only occasionally will patients require larger doses. Failure to respond adequately to a daily oral intake of 400 mcg (0.4 mg) or more is rare and should prompt reconsideration of the diagnosis of hypothyroidism, special investigation of the patient in terms of malabsorption of L-thyroxine from the gastrointestinal tract or poor adherence to therapy.

The concomitant appearance of other diseases, especially cardiovascular diseases, usually dictates a replacement regimen with initial doses smaller than 100 mcg/day (0.1 mg).

In otherwise healthy adults with relatively recent onset of hypothyroidism, full replacement dose of 150 mcg (0.15 mg) or 200 mcg (0.2 mg) has been instituted immediately without untoward effect and with good therapeutic response. General experience, however, favors a more cautious approach in view of the possible presence of subclinical disorders of the cardiovascular system or endocrinopathies.

The age and general physical condition of the patient as well as the severity and duration of hypothyroid symptoms determine the starting dosage and the rate of incremental dosage increase leading to a final maintenance dosage. In the elderly patient with long standing disease, evidence of myxedematous infiltration and symptomatic, functional or electrocardiographic evidence of cardiovascular dysfunction, the starting dose may be as little as 25 mcg (0.025 mg) per day. Further incremental increases of 25 mcg (0.025 mg) per day may be instituted at three to four week intervals depending on patient response. Conversely, otherwise healthy adults may be started at higher daily dosage and raised to the full replacement dosage in two to three weeks. Clearly it is the physician's judgment of the severity of the disease and close observation of patient response which determines the rate of dosage titration.

Laboratory tests to monitor thyroid replacement therapy are of limited value. Although measurement of normal blood levels of thyroxine in patients on replacement regimens frequently coincides with the clinical impression of normal thyroid status, higher than normal levels on oral replacement of levothyroxine occasionally occurs and should not be considered evidence of overdosage per se.

In all cases, clinical impression of the well-being of the patient takes precedence over laboratory determination in determining the appropriate individual dosage.

In infants and children, there is a great urgency to achieve full thyroid replacement because of the critical importance of thyroid hormone in sustaining growth and maturation. Despite the smaller body size, the dosage needed to sustain a full rate of growth, development and general thriving is higher in the child than in the adult, as much as 300 mcg (0.3 mg) to 400 mcg (0.4 mg) per day.

In myxedema coma or stupor, without concomitant severe heart disease, 200 to 500 mcg of SYNTHROID **Injection** may be administered intravenously as a solution containing 100 mcg/ml. Although the patient may show evidence of increased responsivity within six to eight hours, full therapeutic effect may not be evident until the following day. An additional 100 to 300 mcg or more may be given on the second day if evidence of significant and progressive improvement has not occurred. Like the oral dosage form, SYNTHROID **Injection** produces a predictable increase in the circulating level of hormone with a long half-time. This usually precludes the need for multiple injections but continued daily administration of lesser amounts intravenously should be maintained until the patient is fully capable of accepting e daily orel dose.

In the presence of concomitant heart disease, the sudden administretion of such large doses of L-thyroxine intravenously is cleerly not without its cardiovascular risks. Under such circumstances, intravenous therapy should not be undertaken without weighing the alternative risks of the myxedema come end the cardiovascular disease. Clinical judgment in this situation may dictete smeller intravenous doses of levothyroxine.

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Directions for reconstitution

Reconstitute the lyophilized sodium levothyroxine by asepticelly edding 5 ml of the Sodium Chloride Injection, U.S.P. to the viel. Sheke viel to insure complete mixing. **Use immediately** efter reconstitution. Discard eny unused portion.

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Chronic Occlusive Aortoiliac Disease "The Leriche Syndrome"

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Introduction

Leriche called attention to the symptoms of slowly progressive occlusion of the terminal aorta and iliac vessels in young adults.[1, 2] Several papers have been published confirming his early findings with broadening of the syndrome to include patients presenting symptoms of occlusive disease of the terminal aorta, regardless of age or etiology.[3,4,5,6,7,8]

Unlike saddle embolus or sudden thrombosis, the manifestations of ischemia are usually present for months or years before the patient seeks medical advice. Differentiation of this disorder from coarctation, aortitis or spinal cord compression syndrome is possible on clinical grounds, but aortography is needed for definitive confirmation as well as to precisely define the site and extent of the occlusion, particularly if surgical correction is contemplated.

Case Studies

Ten cases admitted to the University Hospital had symptoms and physical findings suggestive of occlusive disease of the terminal aorta and were selected for this study. Particular attention was directed to the presence or absence of diabetes mellitus, hyperlipedemia, hypertension, obesity, smoking habits and to the duration of symptoms before the correct diagnosis was made. The presence of associated cardiovascular disease was also investigated.

Aortography is the most useful procedure to demonstrate aortoiliac occlusive disease and essential in the diagnosis of the Leriche Syndrome; therefore, all patients in this study were examined by this method.

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Arterial catheterization was performed by the Seldinger technique[9], using the left axillary artery approach. Ten (10) ccs of 1 per cent Xylocaine were used for local anesthesia. The axillary artery was punctured with an 18 guage thinwall needle and a 100 cm 6-1/2F Kifa catheter was introduced into the artery. The end of the catheter is "J" shaped with the hook 2½ cms in length and 2 cms in width. Three side holes were placed in the short arm of the hook and four side holes placed in the long hook. A "J" shaped catheter is helpful in passage from the subclavian artery into the aortic arch and descending aorta. Under fluoroscopic control, the top of the catheter is positioned below the takeoff of the renal arteries in such a manner that the "J" shape is maintained. It also prevents injecting the contrast subintimally or under an arteriosclerotic plaque. The end hole of the catheter is directed superiorly without pressing or directing the stream of contrast agent against the wall of the aorta. Fifty (50) to seventy (70) ccs of Renografin 76 were injected in 4-5 seconds by pressure injector.

In all patients described in this study, the pathological process was sharply localized to the vicinity of the aortic bifurcation below the origin of the renal arteries. Several common radiological features were found in these patients:

1. Occlusive disease began in the vicinity of the bifurcation of the lumber aorta. (Fig. 1)
2. There was no arteriosclerotic involvement of the arteries distal to the obstruction. (Fig. 2)
3. Extremely fast passage of the contrast agent was observed through the collateral vessels. (Fig. 3)
4. The collateral vessels in all patients in this study were well developed. (Fig. 2,3)

Sex Incidence and Age Distribution

There were six female and four male patients in this small study. The proportion of females is the highest so far reported. Previous studies give a greater incidence in males



Fig. 1 — Occlusive disease in the vicinity of the bifurcation of the lumbar aorta (lumbar aorta and right common iliac artery). Note already established collateral circulation through lumbar and hypogastric arteries.

1)	Lumbar aorta
2R)	Second right lumbar artery
2L)	Second left lumbar artery
3R)	Third right lumbar artery
3L)	Third left lumbar artery
4)	Superior rectal artery (branch of the inferior mesenteric artery
5)	Sacral artery (branch of the lumbar aorta)
6R)	Right hypogastric (internal iliac) artery
6L)	Left hypogastric (internal iliac) artery
7)	Common iliac artery
8)	External iliac artery
9)	Common femoral artery
10)	Superficial femoral artery

(Milane, 1950[10] and Theis, 1952[11]). This group of females had a metabolic abnormality represented by diabetes in all cases, associated with increase in cholesterol and/or triglycerides, or both, in three cases. Furthermore, two were hypertensive, three had history of angina pectoris, there were two with cerebrovascular symptoms and one had symptoms of intestinal angina. The latter patient died of extensive gangrene of the small bowel.

In contrast, only one male had a history of angine pectoris, none were hypertensive and only one had diabetes with associated lipid abnormality. The latter patient was a 30-year old white male with a two-year history of intermittent claudication and progressive muscle atrophy. Lumbar laminectomy was performed without improvement. Following surgery, he developed impotence with persistence of the claudication. Following this, the correct diagnosis was made and the patient successfully underwent a bypass graft. The mean age at the time of diagnosis was 47 years and the mean age at the onset of symptoms was 39 years, with a range between 24 and 47 years.

Signs and Symptoms

Claudication. The most frequent symptoms were intermittent claudication present in all patients and related to aching, cramping or burning sensation on the buttocks, upper thighs or calves, always associated with exertion and relieved by rest. At the onset of pain, one lower extremity was usually involved, but there was gradually involvement of the other extremity with progressive decrease in the claudication distance. Despite the fact that seven patients in this study were diabetics or had abnormal glucose tolerance tests, none of them complained of pain while at rest, and only three demonstrated muscle atrophy. Two patients had the longest duration of symptoms, 15 and 17 years.

We are in agreement with previous reports (Starer, Sutton[6]) that intermittent claudication is the most reliable symptom of arterial insufficiency and, therefore, of occlusive disease of the terminal aorta.

Impotence. All males in this study were affected by impotence. Unfortunately, decrease of libido was not investigated in the female patients.

Urinary Incontinence Simulating Spinal Cord Syndrome. In one patient, there was urinary incontinence and bowel function disturbance simulating a lower spinal cord syndrome. For this reason, a myelogram was performed, which was normal. Twelve years later, correct diagnosis was made and confirmed by an aortogram, revealing occlusion of the first lumbar artery, which finding was thought to be the cause of his symptoms.

Diminished blood flow to the lower extremeties resulted in moderate to severe suffering with cold feet in each patient studied, and trophic changes of the skin in half of the group was noted. Ulceration and gangrene of the toes were present in three other patients without these findings. It was reported by Leriche[1] that gangrene and ulceration are uncommon in aortoiliac occlusive disease and it is



Fig. 2 — Complete occlusion of the distal portion of th lumbar aorta and both common iliac arteries. Note enlarge ment of the vessels involved in collateral circulation.



Fig. 3 — Fast passage of contrast agent through multiple collateral channels (second film from a series of five, exposed 7 seconds after beginning of the injection). Rapid filling of both common and superficial femoral arteries with no signs of atherosclerotic disease.

possible that diabetes played a significant role in the findings of ulceration and gangrene.

Associated Metabolic Abnormalities. As mentioned heretofore, seven patients in this study were diabetics. Of the seven, four had increase in cholesterol and two demonstrated increase in triglycerides. In three patients, lipid studies were not performed.

Associated Cardiovascular Diseases. Three patients, all females, had hypertension, three had coronary artery disease manifested by angina pectoris and one patient expired following a myocardial infarction. Two patients showed manifestations of cerebrovascular insufficiency and one patient died of a gangrenous bowel. Only three patients in the group did not have clinical evidence of cardiovascular disease.

Conclusions

Case findings as presented exemplify the importance of considering the Leriche syndrome as a diagnostic possibility in the evaluation of patients with low back pain, pain in the lower extremeties or symptoms referable to spinal cord compression, especially with the coexistence of diabetes mellitus, abnormal GTT or disturbance of lipid metabolism.

It is emphasized that this entity is by no means rare and can be easily suspected with a careful history and physical examination. Lack of awareness of the Leriche Syndrome and failure to record the femoral pulses will submit the patient to unnecessary delays in diagnosis and sometimes subject the patient to risky procedures. Since death is due to coronary or cerebrovascular disease in the majority of patients, surgery may be contraindicated if such associated diseases are clinically severe.

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Gram Negative Septic Shock

Charles P. Craig, M.D.*

Part I

Abstract

A recognition of patients at risk to gram negative septicemia, etiologic agents of gram negative septicemia and the pathogenesis enables one to establish the diagnosis early in the course of the syndrome and effect therapy. A 7-point approach to the treatment of gram negative septicemia is presented which provides diagnostic as well as therapeutic guidelines. In addition, several controversial adjunctive therapeutic measures, including the use of corticosteroids, oral, nonabsorbable antibiotics and heparin are discussed. Utilizing this scheme, the alert clinician can significantly reduce the mortality and morbidity associated with gram negative septicemia and shock.

Septic shock, resulting from gram negative bacterial infections, is a relatively recently defined syndrome. The first description of recognized and successfully treated gram negative septic shock came from an observation at the University of Minnesota in 1945 (Waisbren, 1950). Beginning in the 1940's, the development and application of a variety of antibiotics effective in the control of gram positive bacterial infections have resulted in an increasing incidence of serious gram negative infections, frequently complicated by septicemia (Finland, 1970). A knowledge of the etiologic agents, underlying factors, site of origin, pathophysiology, clinical features, prevention and treatment of septicemia and shock is essential in the practice of virtually every medical specialty.

Table 1 outlines the most common etiologic agents in gram negative septicemia. These parallel in relative frequency agents in gram negative septic shock. The data are collected from ten months experience in five general hospitals for a total of 50 hospital months experience. The data reveal E. coli to be the most common agent in gram negative sepsis, accounting for one third of all clinical cases recognized. Proteus is next in frequency and is isolated in one of five patients with gram negative sepsis. Klebsiella is third and Pseudomonas fourth. However, Pseudomonas is different from the others, as are Serratia and Enterobacter, the next two in sequence, in that the majority of these occur as hospital acquired infections. The final organism in this list of common etiologic agents is Bacteroides. It should be recognized that the frequency of gastrointestinal surgery in a hospital, since this is a common pathogenic organism in postoperative abdominal surgical infections.

*Dr. Craig is Associate Chief of Staff for Research and Education, Veterans Administration Hospital, Tampa, Florida. His presentation was made before the Houston County Medical Society in November, 1974. Part II will appear in the June issue of the Journal.

Gram Negative Bacteremia	
E. coli	32%
Proteus	20%
Klebsiella	13%
Pseudomonas	13%
Enterobacter	11%
Serratia	8%
Bacteroides	4%

Table 1

Patient Factors Influencing The Occurrence Of Gram Negative Septicemia.

It is apparent from our studies and others that certain patients are at a greater risk to septicemia than others (Table 2). The most common of the patient factors associated with an increased incidence of septicemia and shock are the extremes of age. In particular, infants less than six months of age, particularly premature infants, and

Patient Factors in Septicemia				
A.	Age			42%
	1.	Especially very young or premature infants		
	2.	The aged, over 60 years of age		
B.	Chronic disease			
	1.	Renal	9%	
	2.	Lung	4%	
	3.	Diabetes	9%	
C.	Alcoholism			8%
D.	Prior infection			17%
E	1.	Bacteremia	10%	
	2.	Skin inflammation or burn	7%	
E.	Obtundation or coma			5%

Table 2

the aged, those over 60 years of age, are at great risk. Forty-two per cent of the group of patients with septicemia fell into these age categories. Chronic disease also plays a role in septicemia and may have a part in the increased incidence of septicemia in the aged. Twenty-two per cent of those with septicemia had some chronic disease: either renal (9%), pulmonary (4%) or diabetes mellitus (9%).

Alcoholism is a factor not often recognized as being associated with increased frequency of serious infections. Eight per cent of the group had histories consistent with the diagnosis of alcoholism. It is recognized that prior infections are associated with a higher frequency of septicemia; however, the sites of these infections are not often emphasized. Previous infections of the urinary tract were found in 10% of those with septicemia, skin inflammation or burns in 7% and pneumonia in 3% of the study population. Obtundation or coma is associated with bacteremia in a significant number of patients, in this group, 5%. There are a number of therapeutic modalities which are employed in the care of patients or in life support systems which increase the frequency of bacteremia (Table 3).

Therapeutic Factors Increasing the Risk of Septicemia

		% of septic patients
1. Prior antibiotics		79%
Broad spectrum	74%	
Narrow spectrum	5%	
2. IV lines (cut-down, intracath, subclavian lines, hyperalimentation)		37%
3. Foley catheter		33%
4. Respiratory therapy		24%
Endotracheal tube or tracheostomy	11%	
Volume respirator	9%	
IPPB treatment	15%	
5. Nasogastric tube		17%
6. Pre-operative hospitalization	4 days	40%*

* % of septic surgical patients

Table 3

It should be recognized that many of these are used in patients who have serious underlying diseases and consequently, the interplay of a variety of factors may influence the infectious outcome. It is, however, interesting that the great majority of patients with septicemia had received previous antibiotic therapy, despite the fact that only approximately 24% could be confirmed to have had other sites of infection. Among the prior antibiotic therapies, 74% were with broad spectrum antibiotics; only 5% narrow spectrum antibiotics. This suggests the possibility that an increased risk of septicemia follows broad spectrum suppression of the patients' natural bacterial flora, whereas a similar risk is not associated with the use of antibiotics with a more restricted bacterial spectrum.

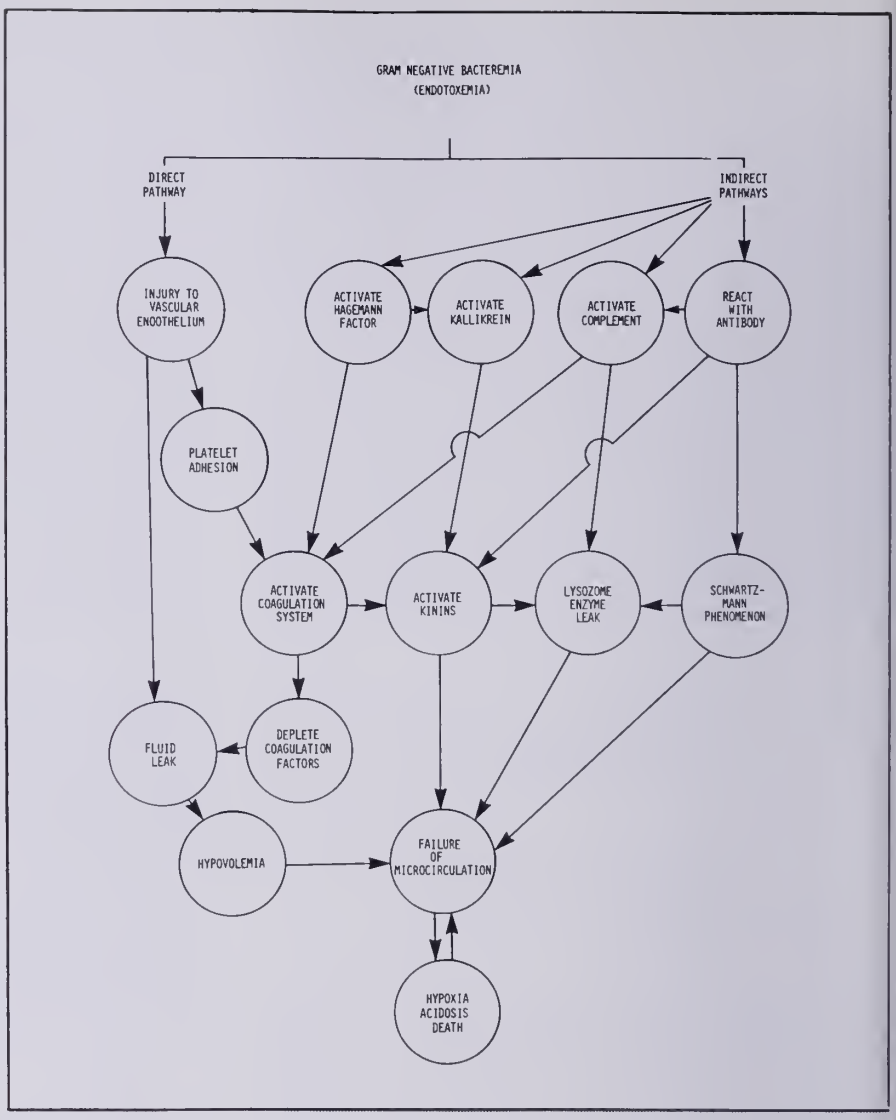
Patients with intravenous lines (cutdowns, intercaths, subclavian catheters, hyperalimentation lines, central venous pressure lines) had a significant frequency of septicemia. Thirty-seven per cent of the septic patients had one or more of these therapeutic devices in place when the septicemia occurred. Also, as might be expected, the Foley catheter, perhaps the most common infection inducing therapeutic modality employed in the hospital, was in place in 33% of the patients at the time of septicemia.

Respiratory therapy techniques are also recognized as being associated with infection risk. Twenty-four per cent of our patients had endotracheal tubes, tracheostomy, volume respirator or intermittent positive pressure breathing treatment prior to septicemia. Nasogastric tubes are known to cause a dys-synchronization of swallowing and epiglottis function, which results in frequency low level aspiration. Seventeen per cent of our patients with septicemia had nasogastric tubes in place and one would assume that either disease of the gastrointestinal tract and associated GI obstruction or aspiration pneumonia were responsible for septicemia in these patients.

Surgeons are becoming increasingly aware of the increased risk of postoperative infection in patients hospitalized for long periods of time prior to surgery. Forty per cent of the postoperative episodes of septicemia occurred in patients who had been hospitalized for more than four days prior to surgery. Recognition that these therapeutic factors may play a role in increasing the susceptibility of patients to septicemia permits the attending physician to respond vigorously to an unexpected febrile complication. In addition, certain of these factors help in determining the site of origin of septic complications. Thus hypotension, bleeding or the need to administer IV fluids lead to a high frequency of direct infection of the vascular tree via intravenous lines. Obstruction, various neoplasms, instrumentation or catheterization of the urinary tract would be expected to be complicated frequently with bacteremia. Respiratory therapy, coma or chronic obstructive pulmonary disease would predispose to a pulmonary source for septicemia. Gastrointestinal obstruction, malignancy or inflammatory disease requiring nasogastric intubation would be expected to increase the potential for infectious complications within the GI tract and septic spread.

Proposed Pathophysiology Of Gram Negative Shock

Gram negative bacteremia is associated with a wide variety of physiologic events which are mediated by enzymatic systems, the coagulation system, certain immunologic factors and the direct toxicity of endotoxin for the vascular endothelium (Figure 1). The net result of these events is sixfold: coagulation system activation and depletion of coagulation factors, complement activation resulting



in lysosomal enzyme leaks, kinin activation, Schwartzman phenomenon resulting in both lysosome enzyme leak and coagulation within the microcirculation, microcirculation failure and a diffuse loss of plasma fluid, proteins and indeed, at times, whole blood.

The result of this is failure of microcirculatory adaptation to intoxication and volume loss which eventuates in hypoxia of endothelial cells and further microcirculation failure. This, if uncorrected, leads to the development of severe acidosis which compounds the inability of the microcirculation to adequately respond and eventually the death of the infected septic patient. A knowledge of this proposed scheme for gram negative bacteremic shock is necessary to the understanding of various therapeutic modalities. These are directed at interfering with the direct toxic effects of endotoxin on the vascular endothelium, as well as the indirect pathways mediated by immunologic phenomena, complement activation and activation of the coagulation system. These are described in more detail below.

1. Direct endotoxin toxicity.

Studies performed in piglets delivered by Caesarian section which have no antibody-due to the fact that the pigs placenta is not permeable to maternal antibody - demonstrate that such "immunological" virgins are still susceptible to the lethal effects of gram negative bacterial endotoxin (Watson, 1971). This supports the claim that endotoxin has a direct toxicity which is not dependent upon the antibody mediated pathways. The direct pathway can be seen to evoke tissue injury including swelling of the walls of small blood vessels and also fever, which results from the release of pyrogenic substances normally found within cells of the liver and spleen. Thus, both vascular damage and release of cell contents seem to occur as direct results of endotoxemia.

As a sequella to the alterations in the vascular endothelium, increased adhesiveness of the linings of the small blood vessels results with adhesion of platelets and red blood cells and subsequent activation of the coagulation system by released platelet factor. In addition, the swelling and the alterations in the vascular endothelium open the intercellular spaces and permit leakage of plasma fluid into the interstitial spaces, thus resulting in hypovolemia and contributing to shock. The indirect pathways are more thoroughly understood.

2. Coagulation system activation.

It is now well recognized that Hageman factor (factor xii) is directly activated by endotoxin (Mason, 1970). This, then, is capable of setting off the entire coagulation cascade through the generation of fibrin with resultant depletion of coagulation components and intravascular clotting in the microcirculation. In addition, the interaction of endotoxin with complement can activate the coagulation system.

3. Complement activation.

There are two points of entry of endotoxin into the sequence of enzymatic steps now recognized as complement activation (Mergenhagen, 1969). The first requires the interaction of endotoxin with naturally occurring antibody to gram negative bacteria which is present in most humans. This sequence of events initiates sequential activation of all nine complement components. It appears to be a normal defense mechanism in that the final step seems to be the creation of a physical hole in the endotoxin wall of a bacterium which facilitates the ultimate killing of the organism by lysozyme, an enzyme normally present in human polymorphonuclear leukocytes and serum. However, in the situtation of gram negative septicemia, this complement activation scheme occurs in uncontrolled fashion throughout the vascular tree, and the resulting active complement components are able to exert their various physiologic roles, including platelet agglutination, red cell agglutination, increase in vascular permeability, activation of neutrophils with chemotactic migration and smooth muscle contraction. All of these events contribute to toxic changes in the microcirculation.

Activation of the leukocytes results in release of certain lysomal enzymes which are toxic to the vascular endothelium. Adherence of platelets and erythrocytes obstruct the microvasculature and the smooth muscle contraction induced by activated complement factors 3 & 5 results in hypoxia of the local tissues and vessel walls. This hypoxia plays a major role in the ultimate failure of the microcirculation.

4. Immunologic events.

The antibody which humans form in response to exposure to any gram negative bacterial endotoxin is relatively nonspecific and will react with a variety of bacterial endotoxins. The reaction between endotoxin in gram negative bacterial cell walls and natural antibody results in complement activation as described above, activation of the kinin system described below and the Schwartzman reaction, which experimentally duplicates all of the various biological processes seen in disseminated intravascular coagulation and septic shock. In particular, the Schwartzman reaction is associated with necrotizing effects on the vascular endothelium, platelet adhesion, erythrocyte agglutination and thrombosis in small vessels with tissue necrosis and death. The Schwartzman reaction, in addition, because of schemia and acidosis produced by vascular obstruction, facilitates the release of lysosomal enzymes from cells in the involved area and thus contributes to the cascade of events associated with gram negative shock.

5. Kinin activation.

The plasma kinin are biologically active pedtides which are capable of a variety of physiologic events including increased blood vessel permeability, smooth muscle relaxation and hypotension. Kinins are generally found in inactive precursos form in the circulation, as well as in certain cells of the body. Endotoxin has the capability of activating kinins through the intermediary effect of kallikrein, as well as through the intermediation of natural antibody (Mason, 1970). The kinins, as a result, play a significant role in microcirculation failure, which is the most catastrophic event in gram negative bacteremia.

Clinical Features Of Gram Negative Shock

The original description by Waisbren of gram negative septicemia in Minnesota remains one of the most precise descriptions of the clinical state of the patient. His description details an elderly gentleman who was seen to be superficially alert, but who had no detectible blood pressure. He was able to respond to questions, but on careful questioning was found to be unable to perform complex intellectual functions. His temperature was quite high and his extremities were cool, although his pulse was bounding. Blood cultures were drawn and he was treated successfully for what was ultimately shown to be gram negative bacteremia; however, he had complete amnesia for the event following recovery. This early stage of gram negative bacteremia in which the patient appears to be perfectly well, but is febrile and hypotensive with tachycardia and bounding pulse is frequently overlooked. Recognition of the syndrome in this early stage, however, is associated with a much better prognosis than when clinical recognition is delayed until gross disturbances in sensorium are present.

There are many dermatologic manifestations of gram negative septicemia including ecthyma gangrenosa, a bluish-black, gangrenous, moist discoloration of the skin, particularly around the mouth and nose, frequently seen with Pseudomonas bacteremia, and a peculiar, sharply marginated, circular, purplish lesion, 1-2 cm in diameter with a surrounding erythematous halo, frequently seen over the chest in Serratia septicemia. Both of these lesions are at least in part due to the predilection of the organisms to direct invasion of vessel walls and thereby direct toxic effects on the microcirculation, with vessel thrombosis and necrosis of the tissues normally served by the involved vessels.

An occasional clinical manifestation of Pseudomonas septicemia is clustered bullus or vesicular lesions with erythematous margins. These also appear to be due to direct invasion of the small blood vessels by Pseudomonas. In general, the clinical features of gram negative septicemia are in order: Chills, fever, disturbance of sensorium which may be subtle or obvious, hypotension which may be profound, falling urinary output without evident cause, tachypnea, tachycardia and a bounding pulse, later followed by a slowly weakening pulse, especially as profound hypotension occurs.

Modern Management of the Pregnant Diabetic

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The management of the pregnant, insulin-dependent diabetic continues to represent a formidable challenge to the obstetrician and subsequently to the pediatrician. The threats to the mother are primarily those of an increased incidence of (1) ketoacidosis, (2) pre-eclampsia, (3) infections, and, in certain advanced cases, (4) progression of retinopathy.

For the fetus, however, the concern is far more grave. As is well-recognized, the most common serious fetal problem is that of sudden, unexplained intrauterine demise. Fetal death is more likely to occur in the presence of the additional complications of pre-eclampsia, hydramnios and poor diabetic control, especially ketoacidosis. This latter and very ominous factor is clearly preventable with proper patient management.

Because of the fear of this unpredictable fetal death, it has become a common practice to effect delivery – usually by cesarean section – at 36 or 37 weeks of gestation. Although most stillbirths can be prevented by such arbitrary management, its value is questionable, since many of these fragile infants succumb in the nursery to complications of prematurity, notably to respiratory distress syndrome (hyaline membrane disease). Because of delayed pulmonary maturation, repiratory distress is unfortunately quite common in prematurely-delivered infants of diabetic mothers. In the nursery, problems of hypoglycemia, hypocalcemia and serious malformations further complicate infant management.

The strict control of blood sugar is recognized as the cornerstone of management in these pregnant diabetic patients. There are several endocrinological and enzymatic factors which ordinarily progressively increase insuline requirements during gestation. In addition, the usual low plasma bicarbonate concentration provides little safety margin between a normal pH and the rapid development of acidosis. For these reasons, repeated hospitalizations for insulin regulation are often necessary and should be advised on the slightest provocation.

A 2200-2400 caloric diabetic diet should be prescribed. Even in the obese patient, weight loss or even denial of a 20-25 pound weight gain promotes catabolism and is therefore contraindicated. The catabolic state promotes ketosis, which is unfavorable to the fetus and to the maintenance of diabetic control. Additional bed rest is probably of value in preventing or minimizing the development of hypertension. Sodium restriction and diuretics are not prescribed.

Certain relatively recent developments in laboratory diagnostic procedures now serve to remove much of the guesswork from proper timing of delivery in the individual diabetic patient. These procedures measure (A) the functional maturity of the fetal lung (the amniotic-fluid L/S ratio), and (B) the condition of the fetus (the oxytocin challenge test and the serial measurements of maternal serum or urinary estrogens).

The L/S ratio[1] measures the ratio of two prominent amniotic-fluid phospholipids. If this ratio is meticulously performed in a dependable laboratory, the result is quite reliable in predicting fetal lung maturity. When the L/S ratio is mature, infant respiratory distress is rare unless trauma or asphyxia occur during delivery.

The oxytocin challenge test (OCT) utilizes external fetal monitoring equipment to measure the response of the fetal heart rate to the periodic hypoxic stress of induced uterine contractions.[2] A negative OCT – a test with no late decelerations – is excellent evidence of intrauterine fetal well-being. A positive OCT – a test with repetitive late decelerations – is considered quite ominous. It has been suggested that the OCT measures the respiratory function of the placenta.

Maternal serum[3] (or urinary[4]) estrogens measure a complex process of maternal-placental-fetal steroid metabolism and as such afford evidence of fetal condition. Estrogens may be a measurement of the nutritive function of the placenta. In the diabetic, estrogens must be measured at least several times weekly and the results must be rapidly available in order to reliably predict impending fetal demise.

At the University Medical Center, we currently use the OCT weekly and serum (or urinary) estrogens several times weekly. As long as both these tests remain normal, we feel no urgency in hastening delivery – even if term (40 weeks) is attained or exceeded. If one of these two tests of fetal well-being is abnormal, the fetus is delivered if the L/S ratio is mature. If both the tests are abnormal, delivery is effected regardless of the maturity of the L/S ratio. The choice of delivery route is usually predicated on the examination of the cervix, as well as on the size estimation of both the fetus and the pelvis. If vaginal delivery is attempted, continuous electronic fetal monitoring is essential. Since birth trauma from macrosomic infants is so common in diabetics, we frequently resort to primary cesarean section if the estimated fetal weight exceeds 4000 grams.

It is obvious that such modern management of the pregnant diabetic and her newborn is optimally carried out in a referral center environment. However, under less optimal conditions many of the tests may be either performed locally or fluids (serum, amniotic fluid) expediently sent to appropriate laboratories. If referral of the infant in utero is not possible, the infant may be referred after delivery and appropriate consultation.

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The following patient presentation illustrates the application of these principles:

L.B., a 24-year-old white woman, para 2-0-1-0, was referred to the University Medical Center at 34 gestational weeks for evaluation and treatment of Class C diabetes mellitus, insulin- dependent since age 19. She had been carefully followed as an outpatient and had required two hospitalizations for adjustment of insulin dosage. The patient had been electively admitted one week prior to transfer for general re-evaluation and consideration of the appropriate mode of delivery. Worrysome data obtained prior to transfer revealed low urinary estrogens, an immature L/S ratio and an OCT felt to be suspicious.

Pertinent physical findings on arrival included normal blood pressure and funduscopic examinations, an estimated fetal weight of 3000 grams, and an undilated, uneffaced cervix with a floating vertex. The prior OCT tracing accompanied the patient and was interpreted as technically unsatisfactory. An immediate repeat OCT was negative, which lessened the urgency for delivery and allowed time for further evaluation. For the next three weeks, she was followed with daily serum and urinary estrogens and with OCT's weekly, all of which were normal. The L/S ratio was periodically checked and remained immature until the day of delivery at 37 weeks, at which time a significant decrease was noted in the estrogens. The OCT, however, remained negative.

Delivery was via cesarean section because of a macrosomic infant and an unfavorable cervix. The infant received 1-and 5-minute Apgar scores of 9 and 10 and subsequently did well except for mild glucose instability during the first 48 hours. There was no respiratory distress. The maternal post-operative course was benign; the insulin requirements were minimal during the first few days. At surgery, a bilateral Irvin tubal ligation was performed.

As can be noted, in this patient with two previous stillborns and no living children, delivery could be confidently delayed until fetal lung maturity was assured by a mature L/S ratio. With earlier delivery, we might only have traded a potential stillborn for a neonatal respiratory death.

Thus, by using the above techniques in the gravid diabetic, management can be suited to the individual situation and more infants can be carried to maturity. This management should result in improved perinatal mortality rate from both stillbirth and prematurity.

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Correlation of Drug Abuse, Psychiatric Diagnosis and EEG Findings

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Samuel C. Little, M.D.**
and
Robert Estock, M.D.***

This paper compares the EEG findings of 53 patients who have used hallucinogenic drugs and required psychiatric help with the EEG findings of a group of normal control individuals as closely matched as possible with the drug users for age. Several studies have been done summarizing EEG findings and drug abuse, EEG and behavior disorders and EEG and psychiatric disorders, but our purpose in this paper is an attempt to intercorrelate the drug usage, psychiatric disturbance and EEG findings.

Animal experiments[1] have indicated that relatively large doses of LSD (lysergic acid diethylamide) can produce changes in CNS function which persist for periods of time, considerably longer than the usually estimated duration of drug action. W. R. Adey[2] reported that cats given a single dose of LSD in amounts of 80 mcg/kg. showed disruption of conditioned responses which persisted for 20 days and these were accompanied by changes in the electroencephalogram. L. G. Sharpe[3] et al, found that two of four squirrel monkeys given daily doses of 10 to 40 mcg/kg. of LSD required four to six months to regain the pre-drug level of proficiency for difficult visual discrimination tasks. In some past studies of the effect of various hallucinogens of the electroencephalogram of man, there were operational difficulties in obtaining tracings while the subject was actually taking the hallucinogen, but it will be seen from the above animal studies that this may not have been as great a barrier to detecting EEG changes as the investigators thought at the time.

For man, LSD is the most powerful psychotogenic substance known. It is effective at levels as low as 1 mcg/kg. of body weight. On a dosage basis, LSD is more than 8000 times more potent than mescaline. Animal experiments[1] support the human studies of Blacher et al,[4] and Cohen and Edwards[5], indicating that even though there is no evidence of irreversible organic brain damage in groups receiving LSD, the impaired performance in visual, perceptual and spatial orientation tests indicate that the actual drug effect may persist for quite a long time after its use has been discontinued. The more obvious psychological effects of psychotomimetics may last an hour or two with DMT (dimethylyptamine), to four to eight hours with LSD[6] and up to four days or more with the amphetamine group.

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Fink and Itil[7] studied a substantially different population of users of LSD than in our series (older chronically addicted patients with psychotic disorders) and reported increased fast activity, decreased alpha and desynchronization early after administration of the drug, but no changes after 48 hours.

Borenstein et al,[8] at the Semaine Interdisciplinaire of Neuroleptics in Liege, agree that sympathomimetic stimulants and hallucinogens as amphetamine and LSD, characteristically desynchronize the EEG and increase its fast activity. However, these are general conclusions and comparisons of neuroleptics with hallucinogens rather than case workers of a specific age group of patients.

The preponderance of evidence suggests that prolonged psychopathological reactions to LSD, that is, those lasting more than 24 to 48 hours are best viewed as latent psychiatric disorders precipitated or exacerbated by the drug experience.[9]

The situation may be somewhat different with marijuana (also called hashish, bhang, kif, charas and colloquially in the United States as weed, grass, tea, joint or Mary Jane) as it is not a true hallucinogen, but is more properly described as a perceptual distorter. Besides alcohol, it is the most commonly abused drug in the United States of America and also in our group of patients.

Miras[10] was able to obtain electroencephalograms in two chronic hashish smokers before and while smoking hashish cigarettes. In the report itself, it is stated that the EEG shows characteristic changes of slowing and increased fast activity for hours or days after the intoxication, but an inspection of the EEG tracings included in this article does not show any changes that seem significant to us.

Borenstein et al,[11] performed EEG studies of 24 patients with acute drug intoxication admitted to a military hospital. They did not find any true pathologic EEG findings. Seven (29%) of the records were normal, 14 (58%) showed either increased theta activity or increased fast activity which they discounted as being due either to the patient's age or to a drug effect and only three (13%) of the records were abnormal.

Method

This study was undertaken as a joint effort of the University Hospital EEG Laboratory, a private psychiatric group (Kay Clinic) and the University of Alabama Department of Psychiatry, all in Birmingham, Alabama. Fifty-three patients having an average age of 17, seen between March, 1970 and January, 1973, were chosen because of abuse of hallucinogens with or without other drugs. Of these, 44 were inpatients and nine were outpatients.

Following the practice in the EEG Laboratory of the University Hospital, the electroencephalograms were interpreted and classified without any knowledge of the clinical features of the case. An attempt was then made to correlate the EEG findings (or lack thereof) with the clinical data available. At a later date, a much more detailed review of the clinical data was carried out independently by a psychiatrist who had not read the electroencephalograms. Patients with a previous history of organic brain dysfunction, systemic disorders which might affect cerebral function, epilepsy, previous psychiatric illness or the presence of an abnormal electroencephalogram previous to the use of hallucinogens were eliminated from the study.

Thirty-seven of these patients (70%) were male and 16 (30%) were female. The 53 normal controls were drawn largely from a hospital-associated population such as student nurses, children of faculty members or hospital employees. No persons were included in the normal control series who gave a history of brain disease, psychosis or other processes which might produce EEG abnormality. The normal controls were chosen at random except that an effort was made to match the ages of the study group as closely as possible. In the control group the average age was 19 years. Twenty-one (40%) were male and 32 (60%) were female. The EEG findings in this group of normal controls was compared with the EEG findings in the study group of drug abusers.

The 10-20 system of electrode placement was used for all EEG recordings. In both the study and the control group, the electroencephalographic interpretation and classification were done with no foreknowledge of the clinical detail. The records were interpreted or classified on a nine point scale, both as to the overall character of the record and the individual features of the recording. In this nine step method of classification, Classes 1-3 are considered normal tracings, Classes 4-6 borderline or equivocal tracings and Classes 7-9 as definitely abnormal. Class 1 and Class 9 records are both quite uncommon.

Uniform diagnostic criteria as set forth by the *Diagnostic and Statistical Manual* of the American Psychiatric Association were used in the detailed analysis of the clinical features of the patients in the study group. Each patient's psychiatric record was examined and overlapping multiple diagnoses were placed in one of the five major diagnostic categories for purposes of subsequent comparison with EEG findings.

A wide variety of drugs used was encountered, but the grouping used in this study was based upon the type(s) of hallucinogens as follows:

(1) Marijuana derivatives only.
(2) Marijuana plus LSD, mescaline and other mixed hallucinogens.
(3) Marijuana plus heroin and/or cocaine.
(4) Marijuana plus amphetamines.
(5) Marijuana plus glue sniffing or gasoline sniffing.

Results

Drugs Used

The most commonly used drugs are marijuana and LSD derivatives. The grouping shown above can be condensed as follows:

Marijuana only - nine patients (16%).

Marijuana plus other drugs - 39 patients (75%).

There was no patient taking only LSD, but 39 patients took LSD with other drugs. Forty-five of the 53 patients used more than one drug (83%). Twenty-six patients (50%) also used amphetamines and eight patients (13%) used

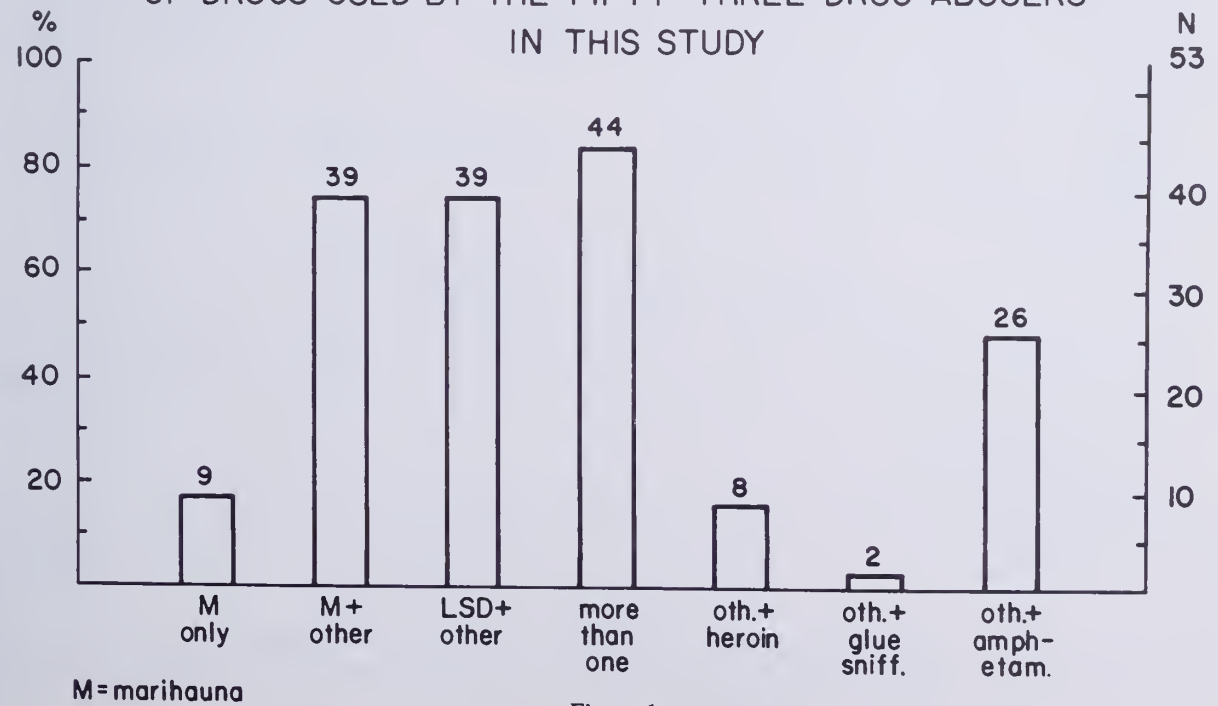


Figure 1

heroin. There were only two who sniffed glue or gasoline. This is shown graphically in Figure 1. Most of the drug abusers had stopped using the drug one to five days prior to the time the electroencephalogram was obtained.

Psychiatric Diagnoses

Psychiatric diagnoses are summarized below and are show in more detail in Table 1, which also shows the gross EEG findings in each group. For comparative purposes, the gross EEG findings in the normal control group are also shown.

1. Transient situational disturbances - 35 patients (66%); 32 of these patients were classifed as "adjustment reactions of adolescence" and three patients had "adjustment reactions of adult life."
2. Personality disorders - 18 patients (40%); antisocial - nine patients, schizoid - five patients, drug dependence - three patients, passive aggressive-one patient.
3. Neuroses - four patients (7%); depressive - two patients, hysterical - two patients.
4. Psychoses - five patients (9%); latent type - one patient, acute schizophrenic episode - one patient, paranoid type - one patient, undifferentiated - two patients.
5. Psychosis associated with organic brain syndrome - four patients (7%). (All four are psychoses with drug intoxication.)

It can be seen from Table 1 that although there were distinct differences in the EEG findings in drug abusers and normal controls, the difference can be more easily seen if the tracings are divided into those which are definitely normal and those which are not normal. These consolidated results are shown in Table 2, and a histogram of the overall quantitative findings is shown in Figure 2.

TYPES OF PSYCHIATRIC DIAGNOSES AND EEG FINDINGS

DIAGNOSIS	Number & Percentage	EEG FINDINGS		
		Normal	Borderline	Abnormal
DRUG ABUSERS				
Transient situational disturbances				
Adj. reaction of adolescence	32 (60)	18 (34)	12 (23)	2 (4)
Adjustment reaction of adult life	3 (6)	3 (6)		
Subtotals	35 (66)	21 (40)	12 (23	2 (4)
Personality Disorders				
Antisocial	9 (17)	4 (6)	5 (9)	1 (2)
Schizoid	5 (9)	4 (8)	1 (2)	
Drug Dependence	3 (6)	2 (4)	1 (2)	
Passive Aggressive	1	1 (2)		
Subtotal	18 (40)	10 (19)	7 (13)	1 (2)
Neuroses				
Depressive	2 (4)	2 (4)		
Hysterical	2 (4)	1 (2)	1 (2)	
Subtotal	4 (7)	3 (5)	1 (2)	0 (0)
Psychoses				
Latent Type	1 (2)	1 (2)		
Acute Schizophrenia	1 (2)	1 (2)		
Paranoid	1 (2)		1 (2)	
Undifferentiated	2 (4)	1 (2)	1 (2)	
Subtotal	5 (9)	3 (5)	2 (4)	0((0)
Psychoses associated with organic brain syndrome (All due to drug intoxication)	4 (7)	2 (4)	2 (4)	0 (0)
Totals for drug abusers	53 (100)	32 (60)	19 (36)	2 (4)
NORMAL CONTROLS	53 (100)	45 (85)	8 (15)	0 (0)

Table 1

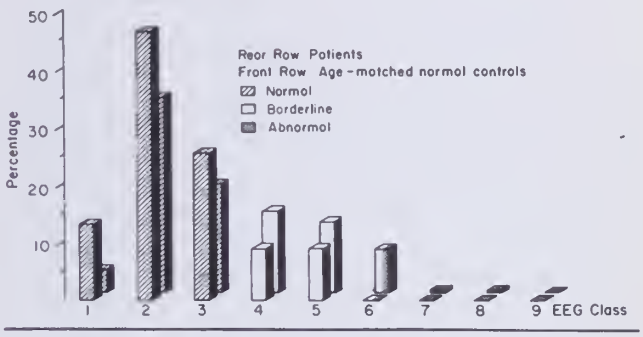
Table showing distribution of psychiatric diagnosis and EEG finding in these groups compared with group of normal contro patients. Numbers in parentheses are percentages. The subgroups sometimes add to more than the total for the group due to the fact that some patients had more than one diagnosis.

EEG CLASSIFICATIONS IN PATIENTS AND NORMAL CONTROLS

DIAGNOSIS	NORMAL	NOT NORMAL
Transient situational disturbances	21	14
Personality disorders	10	8
Neuroses	3	1
Psychoses	3	2
Psychoses due to drug intox.	2	2
Totals for drug abusers	32	21
NORMAL CONTROLS	45	8

Table 2

Figure 2



The above consolidation will allow analysis of the significance of these findings statistically by applying X^2 to a fourfold table. This procedure results in a p value of $<.01$, suggesting that there is a significant difference between the electroencephalograms of drug abusers and normal controls. The numbers in each of the sub-groups for each clinical feature and each EEG findings were too small to permit testing for statistical significance, but it may be of some interest to indicate the general nature of the EEG changes found in the entire group of 53 drug abusers. These were:

1. Non-focal slowing - (mainly theta activity), ten patients (19%).
2. Focal slowing - (theta and delta activity), four patients (7%). Focal sharp waves, one patient (1.9%).
3. Paroxysmal abnormalities - slow waves, rectified waves including 14 & 6/second dysrhythmia, 13 patients (24%), paroxysmal sharp and slow waves, seven patients (13%).
4. Irregular, poorly organized cortical rhythm, two patients. Eleven patients had more than one type of abnormality. Fourteen of 32 normal EEGs contained slight variations (increased theta), rectified 6/second activity.

This material is presented in condensed tabular form in Table 3 which also shows the incidence of these findings in the normal control group.

From the above table, it would appear that the principal electroencephalographic differences between the drug abusers and the normal controls had substantially greater tendencies for paroxysmal abnormalities including paroxysmal slow waves, rectified patterns, sharp waves and slow waves to be found in the patients than in the control group. The drug abusers did not appear to show a tendency to increased sensitivity to hyperventilation or flickered light as compared with the control group.

Principal symptoms prompting the patients to seek psychiatric help were violent behavior, change of character,

EEG FINDINGS	DRUG ABUSERS		NORMAL CONTROLS	
	No.	Percent	No.	Percent
Non-focal slowing (theta activity)	10	19	3	5
Focal slowing (theta & delta)	4	7		
(Sharp Waves)	1	1.9	1	1.9
Paroxysmal abnormalities (slow, rectified)	13	24	2	3.7
(Sharp and slow waves)	7	13	2	3.7
Poorly organized irregular	2	3.7		

Table 3

TYPES OF EEG FINDINGS IN DRUG ABUSERS AND IN NORMAL CONTROLS

family conflict, depression, suicidal attempts, antisocial behavior, "stoned" appearance and impairment of school performance. Psychological evaluations were done on 47 of 53 patients. Twenty-nine had at least average I.Q.s, 12 were bright normal and six patients showed superior intelligence - I.Q. of 130 and over.

Psychiatric examination revealed depression as a major component. Broken homes, living with one parent and having no specific financial problems were also evidence by the histories. Duration of drug use varied from five months to one year and the amounts from moderate to heavy (from two to three times a week to two or three times a day).

Treatment included withdrawal of all drugs upon admission to the hospital or at the beginning of out-patient treatment, individual and group psychotherapy to all patients and family conferences. Patients were usually discharged from the hospital in two to four weeks and then continued in group therapy two times a week as needed. Nineteen patients did not need more than the above regimen. Twenty-five patients were given tranquilizers (chlorpromazine, diazepam...) in addition to the above treatment. Five patients who did not respond to the above also had two to twelve electroconvulsive treatments during hospitalization; three patients were given diphenylhydantoin; one patient was discharged against medical advice. Improvement was fair to good during the stay and following discharge from the hospital, but later follow-ups are not uniformly available. Each patient had one EEG, usually immediately following admission or after the first out-patient visit to the physician.

The most common EEG abnormalities were paroxysmal abnormalities; of 21 patients who showed EEG changes, 14 had paroxysmal findings (66.6%). The possibility that drug withdrawal might account for some of the paroxysmal abnormalities seen in the electroencephalogram of these patients should be considered as such is known to occur following sudden withdrawal of sedatives, hypnotics and "tranquilizers". There is less satisfactory evidence that withdrawal of hallucinogens produce paroxysmal abnormality.

While there is no consistent relationship between changes in the EEG and psychiatric symptomatology, there are several observations which are accepted by some authors and challenged by others. One of the frequent findings in our study was theta activity and according to Grey Walters[12], this pattern is intensified by situations involving affective frustration. Also, theta activity has been used by Travis and Johnson[13] to measure tolerance to experimentally induced frustrations. Anxiety was not a common finding in our patients and according to Kennard's[14] observations using frequency analysis, there is a relation between anxiety and fast rhythms (20 - 30 cycles per second). The rarity of increased beta activity in the EEGs of our patients would correlate with the psychiatric and psychological observations of a low degree of anxiety and a high degree of depression.

C. P. McAree, et al[15] using the M.M.P.I. as a criterion, found that users of multiple drugs had a higher incidence of abnormal profiles and psychopathology than those using only marijuana. In our studies of nine patients using only marijuana, two had EEG disturbances (22%), whereas of 44 "multiple drug users", 18 (41%) had EEG changes. It is also interesting that only one of nine "only marijuana" patients was diagnosed as psychotic (11%), while nine patients (20.4%) were psychotic in the group of "multiple drug users". Of the five patients who showed organic symptoms (photophobia, akathesia, edema, hallucinations and delusions), one was using only marijuana and four were users of several drugs.

C. Shagass[16] reported that averaged evoked responses are diminished in amplitude after the administration of LSD and he felt that this resulted from a state of central "hyperactivation", thus decreasing the responsibility to external stimuli. In this connection, it is of interest that Rodin[17] has reported that evoked potentials in schizophrenics are of a lower amplitude than in normal subjects.

Barrett[18] recorded from permanently placed depth electrodes in monkeys and found that LSD induced EEG changes which were prominent in the frontal lobes and amygdala.

The reports of these investigators show quite clearly a similarity between the effect on the evoked potentials by LSD and in schizophrenia and it would therefore not be surprising if the ordinary electroencephalogram also showed some changes in LSD users. Our studies did not include depth recording, but Monroe et al[19] did record from cortical and subcortical areas in schizophrenics and also found that LSD produced paroxysmal discharges in the hippocampal, amygdaloid and septal regions with an aggravation of the psychotic behavior. In our series of LSD users, the number diagnosed as psychotic was not large enough to draw any conclusions as to the relationship between this state and the paroxysmal EEG changes. Adey et al[2] found seizure-like discharges in the limbic region in cats following the intake of LSD. This may correlate with the dream-like states of unreality experienced by LSD users.

Summary

Psychiatric evaluation and EEG findings of 53 drug abusers and EEG findings of 53 normal controls were examined. Findings were correlated and compared with the findings of other investigators. No significant correlations were found between any specific drug and EEG or drug and psychiatric diagnosis.

When all hallucinogens were considered together we found a statistically significant (p. 0.01) increase in the EEG changes in the group of drug users as compared with a group of age-matched normal controls. Although the differences tended to be quantitative rather than qualitative, there were suggestions that the type of change seen consisted commonly of the occurrence of some type of paroxysmal disturbance.

A follow-up study of the electroencephalograms on these patients was unfortunately not possible and such a study would be required before attempting to answer the question as to whether these patients were drug users because of some cerebral disturbance which also produced changes in the EEG or whether changes were the direct result of the drug abuse.

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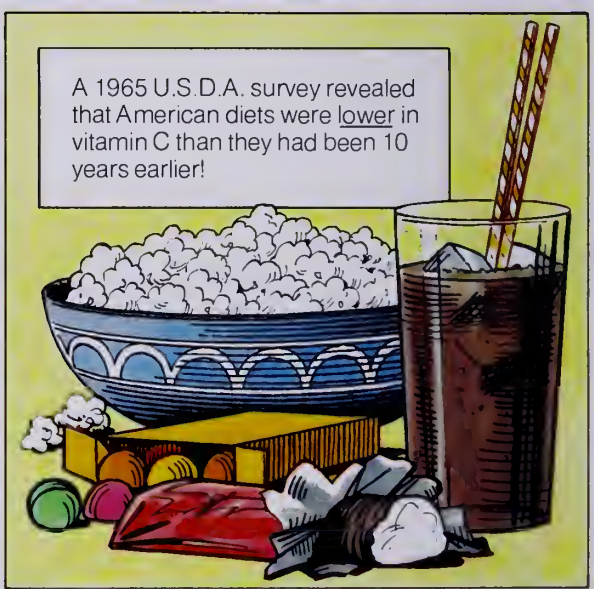
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THE MONTH IN *Washington*



The House Ways and Means Subcommittee on Health began hearings in consideration of legislation for sweeping studies of the medical professional liability problem. The measure, sponsored by Subcommittee Chairman Dan Rostenkowski (D-Ill.), authorizes a study by the Office of Technology Assessment in conjunction with the National Academy of Sciences.

Under the proposal, one study would be completed within 90 days and consider interim arrangements for solution of problems relating specifically to Medicare and Liability. The second study, with a 10-month schedule, would review the entire area of professional liability compensation.

In testimony before the Subcommittee, Malcolm Todd, M.D., AMA President, urged that remedial activity be undertaken at the State level. Dr. Todd told the Subcommittee that personal injury lawsuits are determined under the State rules of law. He noted that the U.S. Constitution requires this procedure, "and as a consequence, each State can determine its own destiny and provide a wealth of experience favorable or unfavorable to its neighbors."

***

With respect to health insurance for the unemployed, Russell B. Roth, M.D., AMA's Immediate Past President, testified before the Rostenkowski subcommittee, that the plight of the unemployed calls for fast remedial action "to devise a method under which health coverage is continued for the unemployed individual and his family and to afford such protection without disruption to the health delivery system."

Dr. Roth advocated a temporary program which would, during the period of unemployment, continue the worker's insurance coverage for himself and his family. Such a program should be built upon the existing unemployment conpensation system, one which affords a ready mechanism for implementation of a temporary program, according to Dr. Roth.

While the program would be funded from the general revenues of the Federal government, premiums would be paid on the basis of certification of entitlement by State unemployment compensation agencies, he said.

A simple extension to the unemployed of Medicare Part A insurance coverage under the Medicare program would restrict the benefits to hospital care and any proposal which would condition the payment for services upon a hospital admission could only be expected to increase pressure for utilization of expensive care facilities and further aggravate inflationary costs, according to Dr. Roth.

The House Health Subcommittee has approved a health manpower bill authorizing $1.7 billion over three years to support medical and other health profession education.

Under the proposal similar to the House-passed bill last year, medical schools would receive capitation support of $2,100 for each student for 1976 and 1977, with support decreasing to $2,000 per student in 1978. The bill provides a simple extension of present health manpower authority for this year.

Medical schools would be required to either increase their enrollment or provide for remote site training for at least 50 per cent of their students in their last two years of medical school education. Medical students would be required to pay back to the U.S. Treasury, capitation amounts paid to schools on their behalf, but would be given capitation payback forgiveness, on an equal year-for-year basis, for time spent in the National Health Services Corps or service in private practice in medically underserved areas.

Approved medical residencies could not exceed 155 per cent of the previous year's graduating class starting in 1978 as a restriction on foreign medical graduates. In 1979 and 1980, limitation would decrease to 140 per cent and 125 per cent. The Coordinating Council on Medical Education could administer the residency limitation, but if it does not agree to accept such administration, the government would do so.

***

Implementation of the utilization review regulations in hospitals and other health care facilities participating in the Medicare and Medicaid programs has been changed from February 1, 1975 to July 1, 1975.

"A number of questions about requirements and interpretation of the utilization review regulations have been raised since their publication, and some small rural hospitals have expressed concern about their ability to conform to these regulations," HEW Secretary Casper W. Weinberger said.

"We have decided to move the effective date of the regulations so as to allow all providers to come into full compliance and to avoid the loss of eligibility to participate in the Medicare and Medicaid programs before July 1," he added.

Facilities with small medical staffs, especially those in rural areas, may have difficulty organizing the in-house review committees to operate the review system required by the regulations, the Secretary said.

THE LAW



FOR DOCTORS IN ALABAMA

By John T. Mooresmith, General Counsel

Three bills of major importance to physicians have been drafted and introduced in the Third Special Session of the Alabama Legislature. This article will analyze each bill and discuss its importance.

The first health measure is the "Neonatal Insurance Bill". This bill will require all individual and group health insurance policies, providing coverage on an expense incurred basis as well as coverage for a family member of the insured, to provide health insurance benefits applicable for children, payable from the moment of birth. Coverage is defined as consisting of coverage of injury or sickness, including the necessary care and treatment of medically diagnosed congenital defects and birth abnormalities, but need not include benefits for routine well-baby care. The bill will apply to all insurance policies and subscriber contracts renewed, delivered or issued for delivery in this State 60 days after the effective date of the act. The bill is designed to prevent insurance companies from providing coverage of a newborn infant beginning at a specified period, such as ten days after birth. If an insurance policy has such a provision, then a birth defect becomes a pre-existing condition and is excluded forever from coverage.

The second bill, "The Disabled Physician Act," is an amendment to the power the State Board of Medical Examiners has to suspend or revoke the certificate of qualification of a physician or osteopath. The acts, offenses and conditions which constitute grounds for disciplinary action have been expanded in an effort to give the medical profession the power to police its own ranks. The expansion includes such grounds as:

(1) Practicing medicine or osteopathy in such a manner as to unwarrantedly endanger the health and safety of his patients;
(2) Conviction of a felony;
(3) Conviction of any crime or offense which reflects the inability of a practitioner to practice medicine with due regard for the health and safety of his patients;
(4) Conviction for any violation of a Federal or State law relating to controlled substances;
(5) Any violation of the principles of medical ethics as set forth in the *Opinions and Reports of the Judicial Council of the AMA;*
(6) Gross malpractice, repeated malpractice or gross negligence in the practice of medicine; and
(7) Making a fraudulent Medicare or Medicaid claim, or a fraudulent claim to any third party payor.

Probably the most important ground set out is the condition of being unable to practice medicine or osteopathy with reasonable skill and safety to patients by reason of illness, inebriation, excessive use of drugs, narcotics, alcohol, chemicals, or any other substance, or as a result of any mental or physical condition. In order to implement this ground, procedures are set out which provide for the physician in question to submit to either a physical, mental or laboratory examination, or any combination of such examinations. If the Board determines that the physician is unable to practice medicine with reasonable skill and safety to his patients, then it may, in its discretion, place the physician on probation and require him to submit to the care, counseling or treatment by physicians designated by the Board.

The Board may also modify at any time the conditions of the probation and may include among them any reasonable condition for the purpose of the protection of the public, or for the purpose of the rehabilitation of the probationer, or both. The reasoning behind this provision is to enable the Board of Medical Examiners to salvage physicians who can be helped by counseling and treatment, rather than suspending or revoking his certificate of qualification to practice medicine.

The last bill is a revision of the Medical Practice Act, in connection with a bill to repeal the Basic Science Law. Recently, there has been a tremendous amount of pressure upon legislators by local officials in their districts to repeal the Basic Science Law. The reason for this pressure is that the law has placed a severe handicap on local officials who are attempting to recruit physicians for their communities. The physician being recruited has frequently taken a Basic Science Examination in another State, prior to that State's adoption of FLEX, and Alabama's Board of Examiners in the Basic Sciences is not able to grant reciprocity to the applicant. This results in a competent, experienced physician being forced to take an examination on basic science courses which he has not studied in many years. This, coupled with the fact that Alabama is one of only five States which have a Basic Science Law, created a legislative climate in which repeal of the Basic Science Law became imminent. The bill to revise the Medical Practice Act was introduced as a companion piece of legislation due to numerous licensure requirements which appear only in the Basic Science Law. For example, the only requirements

(Continued on Page 628)

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THE LAW FOR DOCTORS IN ALABAMA

(Continued from Page 626)

pertaining to foreign medical graduates appear in the Basic Science Law. These include:

(1) A diploma showing graduation from a college of medicine or osteopathy;

(2) Evidence satisfactory to the Board that the applicant has completed the requirements for a resident surgeon in a hospital approved by the Board of Medical Examiners;

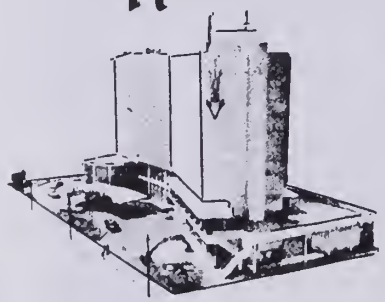
(3) Evidence satisfactory to the Board that the applicant has completed all the requirements for taking the examination of one of the specialty boards approved by the American Medical Association;

(4) Evidence satisfactory to the Board that the applicant has been certified by the Educational Council for Foreign Medical Graduates.

As bills are drafted and introduced in the Legislature, they will be analyzed and discussed in this section so that members of the Association can be better informed of the content of legislation as it affects them.

(Editor's Note: The Neonatal Insurance measure was signed into law by Gov. Wallace at 2:00 p.m., April 29, 1975. It will take effect June 28, 1975, exactly 60 days after the signing, as designated by law. On the afternoon of May 5, the Medical Practice Act revision was signed into law by Gov. Wallace. The legislature, in passing the Medical Practice Act, voted for the repeal of the Basic Science Law, to take effect immediately.

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Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13μg/ml.) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with pre-existing liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

Dosage and Administration. *Children and Adults:* Antiminth Oral Suspension (50 mg. of pyrantel base/ml.) should be administered in a single dose of 11 mg. of pyrantel base per kg. of body weight (or 5 mg./lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 cc. of Antiminth per 10 lb. of body weight. (One teaspoonful = 5 cc.)

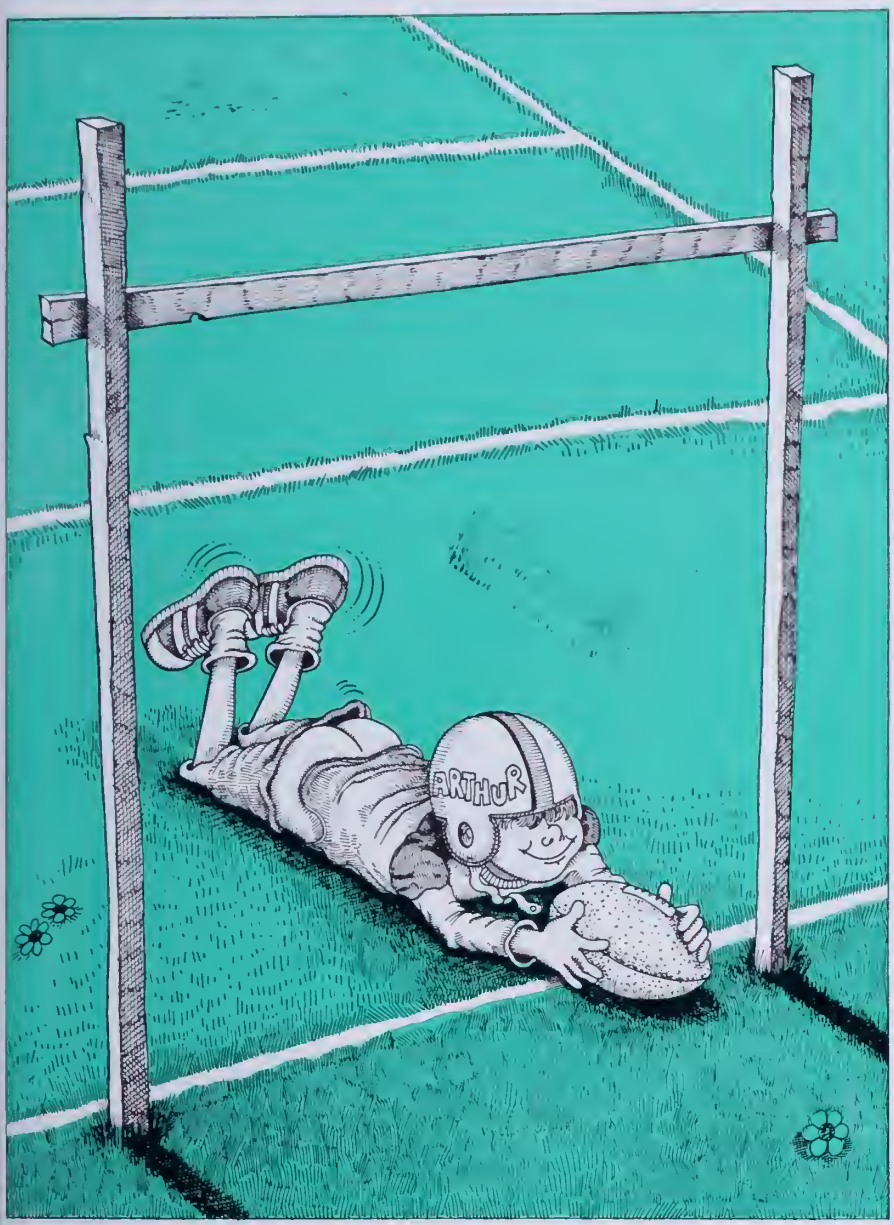
Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

How Supplied. Antiminth is available as a pleasant tasting caramel flavored suspension which contains the equivalent of 50 mg. pyrantel base per ml., supplied in 60 cc. bottles and Unitcups™ of 5 cc. in packages of 12.

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GET INVOLVED POLITICALLY!

ALAPAC offers the way

BY RICHARD WHITAKER
EXECUTIVE DIRECTOR, ALAPAC

To many, it may seem redundant to explain what the Alabama Medical Political Action Committee is and what it does. Surprisingly, however, there are many physicians and others in the medical community that are unaware of the purpose of the committee.

Simply, ALAPAC is a voluntary, non-profit, bipartisan, unincorporated group whose membership consists of physicians, their spouses and other friends of medicine.

ALAPAC was formed because physicians have learned that the time to influence legislation is at the time of election, rather than on a crisis-to-crisis basis as bills are introduced.

ALAPAC also represents an expression of faith in representative democracy and the idea that good men should be supported for public office if that system is to function in the way that it was designed.

ALAPAC's primary function is to raise funds to support candidates which it feels will give organized medicine a fair hearing when legislation is introduced that will have an impact on health care. Selection of these candidates is made by a twelve member board of directors selected from the ALAPAC membership. The board is representative of the political structure of the ALAPAC medical profession both geographically and philosophically. An equally important function of ALAPAC is to keep the members informed as to political developments which affect the political arena, because these developments will later affect the hearing medicine receives regarding legislation.

Members of ALAPAC pay annual dues of $50 for regular and $100 for sustaining memberships. These are the funds which are distributed to candidates. Forty dollars are retained by ALAPAC while $10 are sent to the national organization, AMPAC, which is similarly structured, but contributes to candidates for Federal office. AMPAC makes contributions only upon request of the ALAPAC Board of Directors, which means that the responsibility of candidate selection always remains at the local level.

ALAPAC members are urged to communicate information about candidates throughout the year to their local representatives on the ALAPAC Board. Thus, when it comes time to make decisions, the Board will have opinions of as many ALAPAC members as possible.

It is doubly important that the people at the local level keep the committee informed of deserving candidates as new Federal campaign reform limits the total amount of money any individual can accept in contributions.

There are many diverse opinions about the right way to go about the delivery of health care and it is evident that people are increasingly willing to pass legislation dictating and controlling this area.

It is only through the concern and concerted action of individuals who are experts in the field that legislation can be passed that will reflect accurately the realities of the situation. This is where contributions to ALAPAC are so important. Only by supporting candidates who are willing to listen to doctors and others familiar with the problems of medicine can we ever hope to pass legislation that is meaningful and also effective.

Looking at it objectively, everybody belongs to a special interest group and this is the premise on which the whole system is based. Our legislators are there to judge and balance the interest of one group against the other. The only people who represent a subversive element in this system are those individuals who refuse to participate, for it is those individuals that effectively act to short-circuit the system.

It is hoped that this article will stimulate those individuals who have not joined ALAPAC to do so. But more importantly, it should stimulate you to personally get involved in the politics of your country.

The Upper Functional G.I. Disorder

The Pseudo-ulcer

Ulcer-like symptoms: no G.I. pathology



X-ray demonstrates normal stomach.

The patient is convinced he has an ulcer. However, symptoms are not quite typical, and x-ray findings are negative. These findings and the results of additional diagnostic procedures exclude an organic basis for the patient's complaints. A diagnosis of "upper functional gastrointestinal disorder" is made, which is supported by the fact that episodes of painful symptoms coincide with episodes of excessive anxiety, as indicated by the history.

It may be useful to explain to the patient the mechanism by which emotions upset normal G.I. functioning, resulting in hypersecretion and hypermotility and thus causing such symptoms as nausea and epigastric pain. In upper functional gastrointestinal disorders, counseling by the primary physician can often help the patient understand how excessive anxiety may cause flare-ups of G.I. symptoms.

A disproportionate number of patients seen by the general practitioner suffer from functional disorders, as do more than half of those seen by the gastroenterologist.* Where milder cases may respond to counseling alone, if symptoms are severe and disabling to any degree, a suitable regimen may include medication to reduce the symptoms and the excessive anxiety that often provokes these distressing symptoms.

In these cases, Librax as an adjunct can greatly contribute to the course of therapy. Its dual action can offer relief of both painful symptoms and excessive anxiety, because each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br. The antianxiety action of Librium® (chlordiazepoxide HCl) makes Librax exceptional among drugs for certain gastrointestinal disorders associated with excessive anxiety; the clidinium bromide (Quarzan™) component furnishes dependable antisecretory-antispasmodic action. Dosage is flexible; it may be adjusted according to your patient's requirements within the range of 1 or 2 capsules three or four times daily, up to 8 capsules daily in divided doses. Please consult the complete product information regarding precautions and adverse reactions.

*Rome HP, Brannick TL: Orientation and mechanism of functional disorders; clinicophysiologic correlation, chap. 133, in *Gastroenterology*, edited by Bockus HL. Philadelphia, W.B. Saunders Company, 1965, p. 1116.

An adjunct in anxiety-related upper functional G.I. disorders

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Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

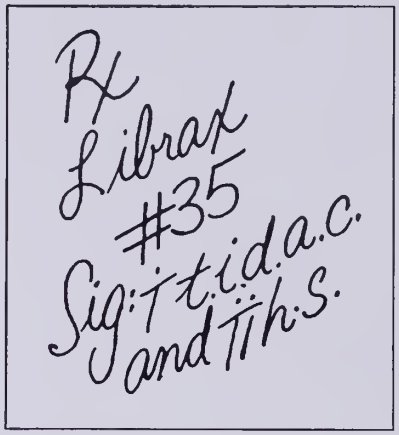
ROCHE

Please see summary of product information on following page.

An adjunct in anxiety-related upper functional G.I. disorders

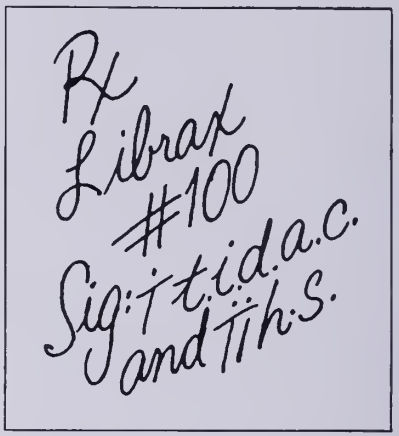
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Initial therapy

The initial prescription allows evaluation of patient response to therapy.



Follow-up therapy

Follow-up therapy with a prescription for 2 to 3 weeks' medication usually helps maintain patient gains.

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Indications: Symptomatic relief of hypersecretion, hypermotility and anxiety and tension states associated with organic or functional gastrointestinal disorders; and as adjunctive therapy in the management of peptic ulcer, gastritis, duodenitis, irritable bowel syndrome, spastic colitis, and mild ulcerative colitis.

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido —all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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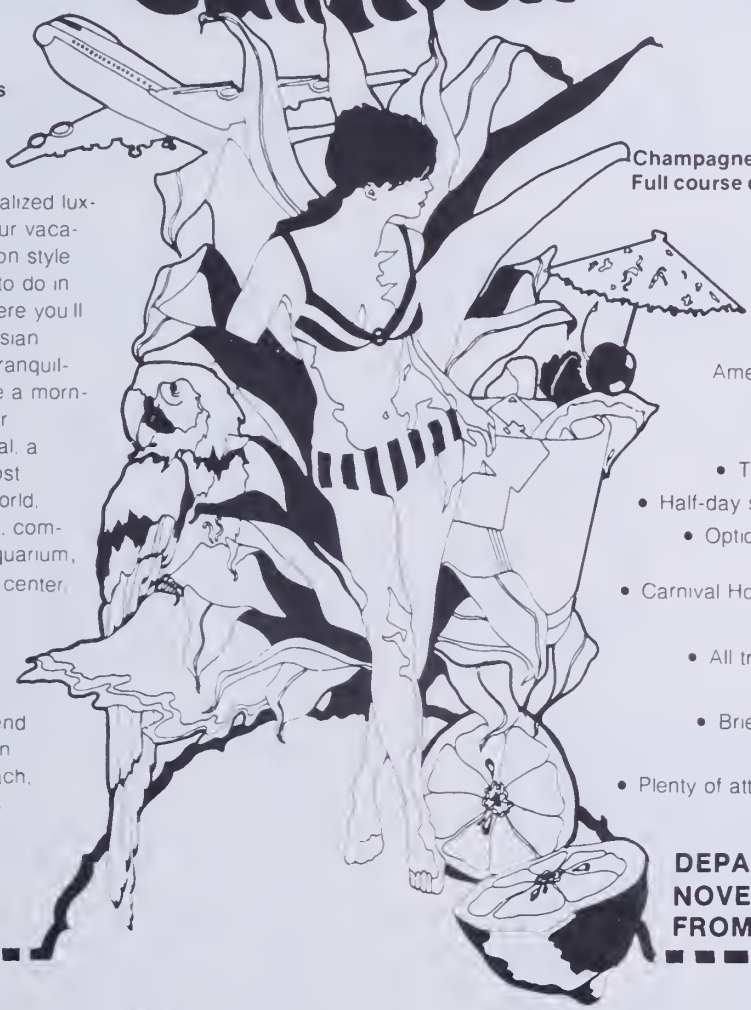
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SIGHTS & SOUNDS

The following films are made available through the Eaton Laboratories. They may be obtained by either contacting your local Eaton Representative or by writing to Eaton Medical Film Library, Eaton Laboratories Division, Morton-Norwich Products, Inc., Norwich, New York 13815.

SURGICAL ANATOMY OF THE FEMALE REPRODUCTIVE SYSTEM, PART I: ANTERIOR ABDOMINAL WALL (785)—Kermit E. Krantz, M.D.—Medical Illustration, animation, surgical intervention, and cadaver dissection are correlated to present the anterior abdominal wall structures encountered in the midline, Pfannenstiel, pararectus, and McBurney incisions. 16mm., color and sound, 20 minutes (1969) IV.

SURGICAL ANATOMY OF THE FEMALE REPRODUCTIVE SYSTEM, PART II: THE INGUINAL REGION (820)—Kermit E. Krantz, M.D.—This film presents an anatomical and surgical approach to the anatomy of the groin of the female with special reference being placed upon the relationship of the vascular nerve and lymphatic supply. This would aid the physician in understanding the diagnostic and surgical aspects of the groin in relationship to malignancy and the infectious process, as well as the comprehending of the problem evolving from hernial repair. The dissections are carried out on humans and are oriented to the surgical approach. 16mm., color and sound, 15 minutes (1973) IV.

RADICAL OPERATION FOR CARCINOMA OF THE VULVA DURING PREGNANCY (770)—Denis Cavanagh, M.D., F.A.C.O.G.—This film concerns the treatment of a patient who was found to have invasive carcinoma of the vulva in the 24th week of pregnancy. She was treated with radical vulvectomy and bilateral groin lymphadenectomy at this stage of pregnancy. At the 39th week of pregnancy a cesarean hysterectomy with bilateral pelvic lymphadenectomy was performed. The use of lymphography in the management of this patient is discussed. 16 mm., color and sound, 15 minutes (1967).

REPAIR OF OLD COMPLETE PERINEAL LACERATIONS (841)—Fred T. Given, Jr., M.D.—This film demonstrates the classical layer type of repair of an old complete perineal laceration with careful anatomical restoration of the entire perineal body. The use of the paradoxical incision or anal sphincterotomy allowing partial decompression and careful preoperative mechanical and antimicrobial bowel preparation is emphasized. 16mm., color and sound, 14 minutes (1973).

COMPLETE VAGINAL REPAIR - A SIMPLIFIED APPROACH (716)—Stanley F. Rogers, M.D., Jack Moore, M.D.and Warren Jacobs, M.D.—This film provides a detailed demonstration of a simple technic for vaginal hysterectomy and pelvic repair, including repair of cystocele, rectocele and uterine prolapse. Operating time is comparatively short, blood loss is minimal, postoperative patient comfort is maximal, and results are good. 16 mm., color and sound, 20 minutes (1956)

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CONTRAINDICATIONS: Hypersensitivity to any of the tetracyclines.
WARNINGS: Tetracycline usage during tooth development (last half of pregnancy to eight years) may cause permanent tooth discoloration (yellow-gray-brown), which is more common during long-term use but has occurred after repeated short-term courses. Enamel hypoplasia has also been reported. **Tetracyclines should not be used in this age group unless other drugs are not likely to be effective or are contraindicated. Usage in pregnancy.** (See above **WARNINGS** about use during tooth development.)
Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.
Usage in newborns, infants, and children. (See above **WARNINGS** about use during tooth development.)
All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrease in tibula growth rate observed in prematures given oral tetracycline 25 mg/kg every 6 hours was reversible when drug was discontinued.
Tetracyclines are present in milk of lactating women taking tetracyclines.
To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The anti-anabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.
Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.
PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.
In venereal disease, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.
Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.
In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).
Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.
Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.
ADVERSE REACTIONS: Gastrointestinal (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in the anogenital region.
Skin: maculopapular and erythematous rashes; exfoliative dermatitis (uncommon). Photosensitivity is discussed above (See **WARNINGS**).
Renal toxicity: rise in BUN, apparently dose related (See **WARNINGS**).
Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.
Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.
Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.
Over prolonged periods, tetracyclines have been reported to produce brown-black microscopic discoloration of thyroid glands, no abnormalities of thyroid function studies are known to occur.
USUAL DOSAGE: Adults—600 mg daily, divided into two or four equally spaced doses. More severe infections: an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. Gonorrhea In uncomplicated gonorrhea, when penicillin is contraindicated, 'Rondomycin' (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule: 900 mg initially, followed by 300 mg q.i.d. for a total of 5.4 grams.
For treatment of syphilis, when penicillin is contraindicated, a total of 18 to 24 grams of 'Rondomycin' (methacycline HCl) in equally divided doses over a period of 10-15 days should be given. Close follow-up, including laboratory tests, is recommended.
Eaton Agent pneumonia 900 mg daily for six days.
Children—3 to 6 mg/lb/day divided into two to four equally spaced doses.
Therapy should be continued for at least 24-48 hours after symptoms and fever have subsided.
Concomitant therapy: Antacids containing aluminum, calcium or magnesium impair absorption and are contraindicated. Food and some dairy products also interfere. Give drug one hour before or two hours after meals. Pediatric oral dosage forms should not be given with milk formulas and should be given at least one hour prior to feeding.
In patients with renal impairment (see **WARNINGS**), total dosage should be decreased by reducing recommended individual doses or by extending time intervals between doses.
In streptococcal infections, a therapeutic dose should be given for at least 10 days
SUPPLIED: 'Rondomycin' (methacycline HCl): 150 mg and 300 mg capsules; syrup containing 75 mg/5 cc methacycline HCl.

Before prescribing, consult package circular or latest PDR information.

Rev. 6/73

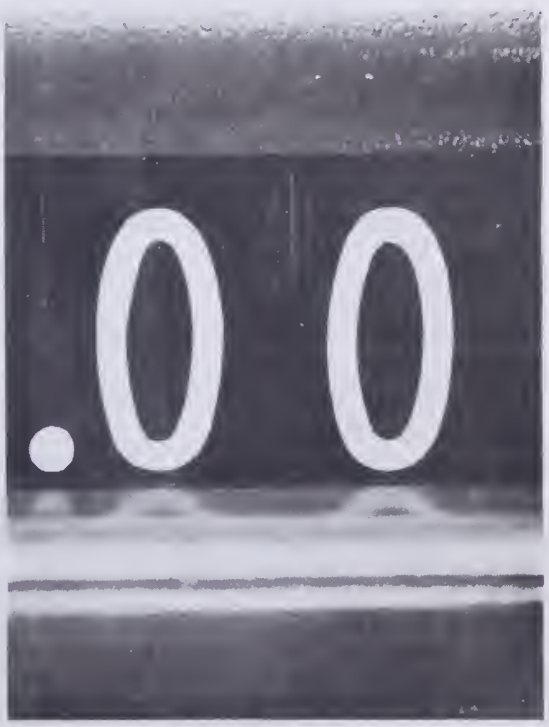
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Digest of Actions of the State Board of Censors

Herewith is presented a Digest of Actions taken at the April 15-19 meeting of the State Board of Censors:

1. Approved Financial Statement for period ending March 31, 1975, which shows receipts in the amount of $283,143.58 and disbursements in the amount of $199,302.27.
2. Received as information Supplemental Report of Secretary-Treasurer, containing list of obituaries since submission of the 1974 Annual Report of the Secretary-Treasurer.
3. Recommended that the Governor be requested to send one member of the Medical Liability Task Force, preferably the chairman, Mr. Bill Jackson, to the Medical Malpractice Conference, May 8-9, 1975, Washington, D.C.
4. Disapproved expenses for representative to attend the PAS Regional Quality Assurance Workshop sponsored by the Commission on Professional Hospital Activities, April 29, 1975, Atlanta.
5. Nominated the chairman of the Council on Medical Service for appointment to the Title XIX Medical Care Advisory Committee.
6. Nominated Dr. H. G. Hodo, Fayette, and Dr. William Bridges, Mobile, for election to the Blue Cross-Blue Shield Board of Directors to succeed Dr. J. D. Bush, Gadsden, and Dr. J. M. Cameron, Montgomery.
7. Approved creation of a Council on Socio-Economics contingent upon adoption of the newly-revised Constitution and Bylaws.
8. Deferred nomination of member to Alabama Hospital-Medical Council since no action will need to be taken if the new Constitution and Bylaws are adopted.
9. Instructed ad-hoc committee composed of Drs. C. L. Rutherford, Chairman, Paul W. Burleson and A. Derrill Crowe to continue study of the feasibility of a computer billing service sponsored by MASA and seek proposals from several companies for presentation to the Board at a later date.
10. Reaffirmed policy that Doctors of Osteopathy are eligible for membership in the county and state societies if licensed to practice within the State.
11. Designated Dr. H. H. Hutchinson and Mr. Larry D. Dixon to attend National Conference on Health Planning, April 24-26, 1975, at University of North Carolina, Chapel Hill, North Carolina.
12. Approved purchase of video-cassette recorder-player for use by Education Department in presenting continuing medical education to membership.
13. Recommended that Governor's Office be informed that the Board has no opposition to repeal of the Basic Science Law provided the Medical Practice Act is satisfactorily amended.
14. Received report from ad-hoc committee on Public Law 93-641 composed of Drs. Leon C. Hamrick, Chairman, J. Garber Galbraith and H. H. Hutchinson and requested committee to continue its study.
15. Received report from Mr. Dow Walker regarding meeting with Insurance Commissioner Deputy Forrester and officials of St. Paul Insurance Company concerning claims-made policies, at which no final decision was reached.
16. Received presentation from Mr. Raymond H. Bohl, Vice-President of Special Accounts, Employers Insurance of Wausau, regarding the MASA/Wausau Program from its organization in August, 1972, to February 1975.
17. In organizational session on April 19, 1975, elected Dr. Leon C. Hamrick as Chairman of the Board of Censors to succeed Dr. John M. Chenault and Dr. H. H. Hutchinson, Vice-Chairman, to succeed Dr. Hamrick.
18. Elected Dr. Charles L. Rutherford to serve on the Subcommittee on Public Health.

Digest of Actions of the State Committee of Public Health

Herewith is presented a Digest of Actions taken at the April 15-19 meeting of the State Committee of Public Health:

1. Referred a request from Dr. George Cassady, Professor/Director, Division of Perinatal Medicine, University Medical Center, to the Council on Prevention of Disease and Medical Care for submission of a precise recommendation for the formation of a Multi-discipline Statewide Neonatal Advisory Committee.
2. Approved consolidated list of controlled substances, by generic name, for reference by courts in enforcement proceedings.
3. Confirmed registrars for Vital Statistics for Henry, Marengo and Tuscaloosa Counties; confirmed the appointment of deputy registrars in Jefferson and Tuscaloosa Counties.
4. Voted to invite three physicians to appear before the Committee at its next meeting to explain delinquency in reporting of deaths. Deaths reported sixty days or longer after the event require an affidavit specifying the reason for delay.
5. Received a report of the Browns Ferry Nuclear Plan fire of March 22, 1975. This was an in-plant inciden and no off-site radiation resulted.
6. Approved continuation of grant applications for th following 314 (b) Agencies:
   Muscle Shoals Comprehensive Health Planning Cou cil, Muscle Shoals
   Health Planning Association, Alabama Planning Di trict IV, Gadsden
   North Central Alabama Health Planning Agenc Decatur
   Top of Alabama Health Planning Agency, Huntsvil
7. Recommended to the Governor the designation six Health Service Areas under PL 93-641 requirii three waivers—two for population problems and o for a division of the Russell-Muskogee Coun Standard Metropolitan Statistical Area which wou keep Russell County planning in Alabama.
8. Approved Clay County Hospital Assurance of Nc for twenty bed addition and remodeling.
9. Denied approval of Assurance of Need for Gunte ville Nursing Home and Guntersville Senior Villag
10. Approved Assurance of Need for Marshall Mar

Nursing Home, Guntersville, as recommended by the 314 (b) Agency.

11. Approved Cherokee-Etowah-DeKalb Mental Health Center converting from a private non-profit corporation to a public corporation.
12. Heard complaints from the Alabama Council for Voluntary Family Planning regarding their desires for continued staffing and their request to continue funding of the organized community action program in four southeast Alabama counties and other differences regarding administration. After extensive discussion, the State Committee of Public Health voted unanimously to reaffirm their support of the State Plan and directed the Family Planning Council to serve as an Advisory Committee through the CHP Advisory Council, as originally authorized.
13. Received information regarding a pending suit dealing with jail sanitation and medical care involving public officials, health agencies and authorities. Appropriate legal response is being arranged.
14. Received information regarding a pending suit relating to a landfill in Florala. Appropriate legal response is being arranged.
15. Received advice that Federal funding for laboratories and counties under 314 (d) will be continued through June 30.
16. Approved the construction of a laboratory on a separate site with the purchase of property at a new location in East Montgomery.
17. Requested Attorney General's opinion regarding limits of practice of surgery by Podiatrists.
18. Approved the Rabies Bill, in principle, for submission by the Veterinary Medical Association to the Legislature.
19. Discussed proposed study of rising costs of Medicaid; received a report of the Medicaid director's meeting with the Optometric Peer Review Committee; considered a change in the Medicaid Utilization Control Plan; received a report on hospital extensions for March and Medicaid budget projects.
20. Dr. Leon C. Hamrick, Fairfield, was elected Chairman of the State Committee of Public Health and Dr. H. Hamilton Hutchinson, Montgomery, was elected Vice-Chairman.
21. The meeting dates for May and June are: May 21 and June 11 (one week early due to AMA meetings.)

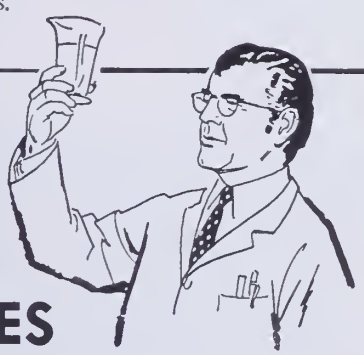
GIRLS' SMOKING MATCHES BOYS'

Surveys of cigarette smoking among teenagers have revealed that there is no longer any appreciable difference in the smoking habits between boys and girls, although 6 years ago only half as many girls as boys smoked.

A report issued by the National Clearinghouse for Smoking and Health, a unit of the U.S. Public Health Service's Center for Disease Control, showed that in 1968 the number of girls from 12 through 18 years of age who smoked was 8.4%, compared to 14.7% of boys. By 1974 the figure for girls had risen to 15.3%; boys stood at 15.8%.

"During the 6 years covered by the surveys, the proportion of boys who smoke at least once a week changed very little," the report stated. "Among girls, however, there has been a gradual increase in the proportion of smokers in every age group. This has practically eliminated the difference in smoking behavior of the two groups."

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Otto F. Eisenhardt, M.D.
F. Joseph Nuckols, M.D.
James A. Greene, M.D.
Charles W. Moorefield, M.D.

Administrator:

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Neither inconvenient, unpalatable, expensive potassium supplements nor special K^+ rich diets are needed as a rule. Just 'Dyazide' once or twice daily for control of edema.

Before prescribing, see complete prescribing information in SK&F literature or *PDR*. The following is a brief summary.

*Indications: Edema associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. Also, mild to moderate hypertension.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

Supplied: Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

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'Dyazide' gets excess water and salt out and helps keep essential potassium in





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Four tablets (0.5 Gm each) STAT-
then 2 tablets B.I.D. for 10-14 days

Basic therapy with convenience for acute nonobstructed cystitis

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Acute, recurrent or chronic nonobstructed urinary tract infections (primarily pyelonephritis, pyelitis, and cystitis) due to susceptible organisms. ***Note:* Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials, including sulfonamides, especially in chronic or recurrent urinary tract infections.** Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Sulfonamide hypersensitivity; pregnancy at term and during nursing period; infants less than two months of age.

Warnings: Safety during pregnancy has not been established. Sulfonamides should not be used for group A beta-hemolytic streptococcal infections and will not eradicate or prevent sequelae (rheumatic fever, glomerulonephritis) of such infections. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy. Insufficient data on children under six with chronic renal disease.

Precautions: Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: *Blood dyscrasias* (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia); *allergic reactions* (erythema multiforme, skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); *gastrointestinal reactions* (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia as well as thyroid malignancies in rats following long-term administration. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis).

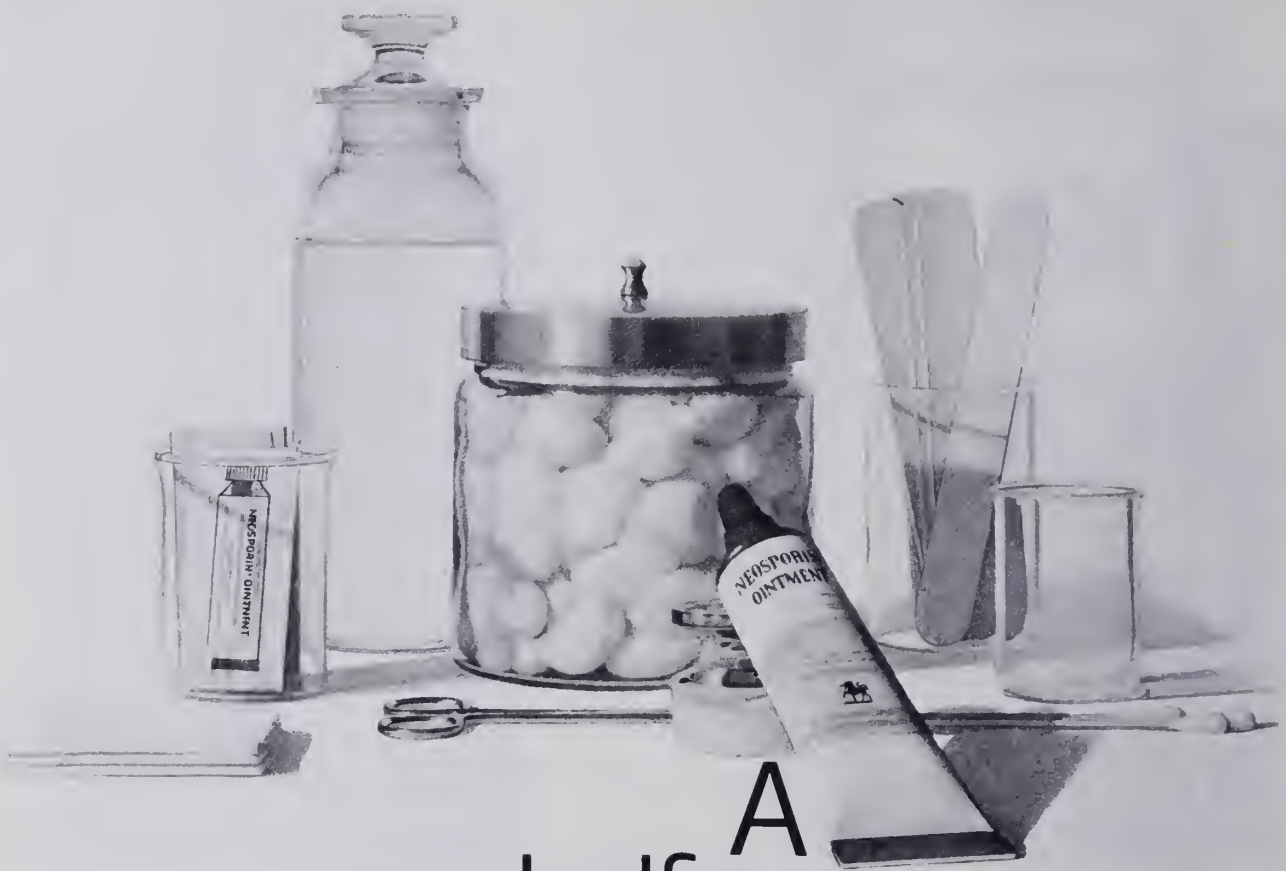
Usual adult dosage: 2 Gm (4 tabs or teasp.) initially, then 1 Gm *b.i.d.* or *t.i.d.* depending on severity of infection.

Usual child's dosage: 0.5 Gm (1 tab or teasp.)/20 lbs of body weight initially, then 0.25 Gm/20 lbs *b.i.d.* Maximum dose should not exceed 75 mg/kg/24 hrs.

Supplied: Tablets, 0.5 Gm sulfamethoxazole; Suspension, 0.5 Gm sulfamethoxazole/teaspoonful.

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Each gram contains: Aerosporin® brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs.
In tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

INDICATIONS: *Therapeutically*, used as an adjunct to appropriate systemic therapy for topical infections, primary or secondary, due to susceptible organisms, as in: • infected burns, skin grafts, surgical incisions, otitis externa • primary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia) • secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis) • traumatic lesions, inflamed or suppurating as a result of bacterial infection. *Prophylactically*, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing.

CONTRAINDICATIONS: Not for use in the eyes or external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity

absorption of neomycin is possible. In burns where more than 20 percent of t body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriat measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of per allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

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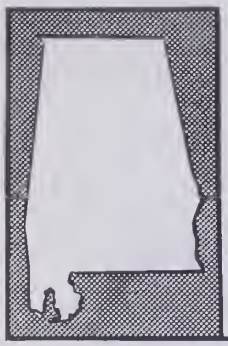
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LOCATIONS WANTED

(Physicians interested in locating in Alabama)

General Practice: Age 30; University of Alabama 1974; seeking associate practice in Greater Birmingham area. Available July 1975. LW-1

General Practice: Age 30; University of Kansas 1970; Board certified? seeking associate or group practice. Available July 1975. LW-1/1

Internal Medicine: Age 35; University of Missouri 1967; National Board; Board Certified; seeking group or institutional practice (int. med. and cardiology). Available July 1975. LW-4

Internal Medicine, hematology or hematology-oncology: Age 32; Temple University 1969; National Board; Board certified; seeking associate, group or institutional practice. Available August 1975. LW-4/1

Internal Medicine-Cardiology: Age 33; University of Pennsylvania 1968; Board certified; seeking associate, group or institutional practice. Available 1975. LW-4/2

Obstetrics-Gynecology: Age 35; Downstate Medical Center 1965; Board Certified; National Board; seeking solo, associate, group or institutional practice. Available July 1975. LW-5

Ophthalmology: Age 39; Ohio State University 1963; Board eligible; seeking associate, group or solo practice. Available July 1975. LW-10

Ophthalmology-Ophthalmic Pathology: Age 29; Meharry 1970; Board eligible; seeking associate and/or institutional practice. Available July 1976. LW-10/1

Pediatrics: Age 31; University of Alabama 1970; National Board; Board eligible; seeking associate or group practice. Available August 1976. LW-7

Surgery: Age 34; Wayne State University 1967; Board eligible; seeking solo, associate, or group practice. Available December 1975. LW-8

Surgery-Thoracic & Cardiovascular: Age 38; Medical College of South Carolina 1964; Board certified; seeking group practice. Available September 1975. LW-8/1

Surgery-Thoracic & Cardiovascular: Age 35; Ohio State University 1966; Board certified; seeking associate or group practice. Available January 1976. LW-8/2

Urology-Urol. Surgery: Age 31; University of Tennessee 1969; National Board; seeking associate or group practice. Available Jan-Feb 1976. LW-9

Urology: Age 30; Northwestern 1968; National Board; Board eligible. Available January 1976. LW-9/1

PHYSICIANS WANTED

(Opportunities For Practice)

General Practitioner, Obstetrician-Gynecologist, Family Practitioner needed in progressive coastal community with trade area of 30,000 population. Two man practice located adjacent to an excellent 100-bed hospital. Medical school within 55 miles. Unlimited hunting, fishing, golf, tennis and water sports. PW-1

Pediatrician: one or two pediatricians needed in thriving practice in North Alabama. Office space is adequate and located one block from hospital. Population of the area is approximately 100,000. Schools and receational facilities are excellent. Several churches. PW-1/2

General Practitioner wanted for associate practice with two Family Practitioners, ages mid-thirties. New 100-bed hospital, new office building being designed adjacent to hospital. Full time after hours E. R. coverage. Located in North Alabama mountain lakes region. Town of over 13,000 population. Excellent school systems, public and parochial. Invitation to visit with expenses paid will be directed to those qualified. PW-1/3

General Practitioner; opportunity in Central Alabama community with a trade area of 30,000-35,000 population. Nearest large city, 10 miles, with 135,000 population. Established practice available because of recent death of physician. Financial assistance available to offset moving expenses. PW-1/4

General Practitioner; associate wanted in a three physician general practice in a rural county near Mobile. Salary initially with anticipated early partnership arrangement. 30-bed county hospital adjoining the office. PW-1/5

One or more **Pediatricians** and one or more **Internal Medicine** and/or **Family Practitioners** wanted in town located in northwestern section of the state. 63-bed general short term acute city-owned hospital, accredited by JCAH. The City has built a modern, new clinic building adjacent to the hospital. Office suites available rent free for first 12 months. Salary offered to physicians by the city for the first six months, non-refundable. PW-1/6

Wanted— **2 Internists, 2 Ob-Gyn, 2 Pediatricians, Urologist, 1 Anesthesiologist.** Fee for service basis, group guarantee 1st and 2nd year. New office space to be available next to hospital. 100-bed hospital, modern well equipped, fulltime radiologist and pathologist. Two general surgeons and 9 general practitioners now serving population base 40,000. Unemployment in area less than one percent. Excellent recreation area. Invitations to visit with expenses paid will be directed to those qualified. PW-1/7

General Practitioner: Opportunity in town of 3,000 population located in west Alabama in trade area of 20,000 population. 30-bed hospital in the town. Nearest large city 50 miles distant, population of 150,000. The Medical Clinic Board is authorized by the town to provide office space and arrange adequate housing. Farming and industry in the community. Churches, schools, and recreational activities. PW-1/8

Unique opportunity for **Family Practice** in city of 40,000 population, located in Central Alabama. Good location for outdoor activities, near larger cities. PW-1/9

NECROLOGY



Rufus C. Partlow, M.D.
1885 - 1975

Dr. Rufus C. Partlow, Tuscaloosa Psychiatrist and Hospital Administrator, received his medical degree from the University of Alabama in 1912. He interned at Bryce Hospital, Tuscaloosa, and continued to serve at the Hospital until his retirement in 1965.

Dr. Partlow was Assistant Physician at Searcy and Bryce Hospital until 1944, when he became Assistant Superintendent at Partlow State School. His brother, Dr. W.D. Partlow, was the former Superintendent at Partlow State School and Hospital for the Mentally Retarded, which was named in his honor.

Dr. Rufus Partlow was Past President of the Alabama Academy of Psychiatry, a Counsellor to the AMA and a member of the Medical Association of the State of Alabama.

Marvin H. Lynch, M.D.
1903-1975

Dr. Marvin H. Lynch, Scottsboro Family Physician, graduated from South Carolina in 1928. He came to Jackson County in 1930 as County Health Officer.

He was a charter member of the Jackson County Hospital Board. A member of the Medical Association of the State of Alabama and the American Medical Association, Dr. Lynch had served as a Counsellor for the Association since 1959.

Leon Samuel Smelo, M.D.
1911 - 1975

Dr. Leon S. Smelo, Birmingham Internist, received his medical degree from the University of Pennsylvania Medical School in 1934. He came to Birmingham in 1942, working with the Seale Harris Clinic. He later joined Birmingham Medical Center in Montclair as Chief of the Diabetes Division. In 1954, he became president of the medical staff, Baptist Medical Centers.

Co-founder of the Alabama Affiliate of the American Diabetes Association, Dr. Smelo was serving as Chief of the Diabetes and Metabolism Divison at Montclair at the time of his death. In addition to his affiliation with the American Diabetes Association, he was a Diplomate of the American Board of Internal Medicine, a Fellow of the American College of Physicians and was active with the Smelo Diabetic Camp for diabetic children.

Benjamin F. Morton, M.D.
1908 - 1975

Dr. Benjamin F. Morton, Birmingham Psychiatrist, received his medical degree from Rush in 1933. An Associate Professor of Psychiatry at the UAB School of Medicine, Dr. Morton was past president of the Alabama Academy of Neurology and Psychiatry.

He was serving at the time of his death as Chief Emeritus of the Psychiatry Department of the Baptist Medical Center - Princeton. Dr. Morton is survived by his wife, Justine, and two sons.



James Shields, M.D.
1933-1975

Dr. James Shields, Tuscaloosa Pathologist, received his medical degree from the University of Glasgow, Scotland, and served as an intern at the Glasgow Royal Infirmary. He was a Ship's Surgeon on HMS Circassia until 1959 when he came to the United States.

He completed anatomic and clinical pathology residencies at the Washington Hospital Center. In 1963, he became chief resident in clinical pathology at St. Joseph's Infirmary, Atlanta.

Dr. Shields moved to Alabama as Pathologist and Director of Laboratories at Russell Hospital, Alexander City, in 1967. The following year, Dr. Shields became the Director of Laboratories at Druid City Hospital, Tuscaloosa.

A Diplomate of the American Board of Pathology, he belonged to the following professional organizations: Medical Association of the State of Alabama, the American Medical Association, Tuscaloosa County Medical Society and the American Society of Clinical Pathologists.

He is survived by his wife, Sheila, a daughter and a son, of Tuscaloosa.

FOR CORRECTION SEE p. 716

Auxiliary



Martha Hughes
President

It is my pleasure to begin another auxiliary year with the writing of this column. I am proud to be your president and trust this year will be a rewarding one, not only for myself, but for all our members.

Our theme for the year will be the familiar "Getting to Know You", with special emphasis on membership. Not only do we need to know our present active members, we also need to search out and enlist the prospects in our communities. Totsie Young, who has done such outstanding work with Health Education, will be transferring all that energy to membership and I know results will be obtained.

Frances Wideman is doing her best to see that all of us keep up-to-date with the happenings occurring on the political scene. On May 20th we will gather in Montgomery for orientation, lunch with our representatives and a visit to the legislature. This was a success two years ago, and we urge as many as possible to come and be with us.

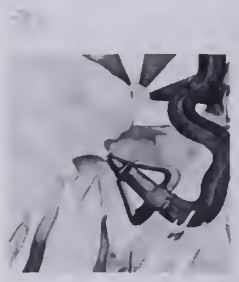
Taking advantage of having this many ladies in town has prompted us to utilize this opportunity for a workshop. This will take the place of the fall workshop. We will start on Tuesday evening and finish about 12:30 P.M. the next day. Be sure your program chairman, as well as other committee chairmen, are there to be brought up-to-date on current events.

Beginning in the fall, we will again have district meetings. This will give our travel team an opportunity to meet together at one time in a district, and it also affords the opportunity for many who cannot be away from home overnight a chance to participate.

As the summer progresses, take a note of wives of physicians in your community that are unknown to you. Next step, introduce yourself and get to know each other – oceans of talent can be discovered this way. All wives are not interested in every phase of auxiliary work, but there is bound to be at least one area that each person has interest in and would like to become involved. It is up to us to find it.

I am looking forward to May 20th and 21st. Do make your plans to attend now.

Over 200 doctors stand to lose New Mexico Licenses...New Mexico, the first state with continuing education as a requirement for relicensure, has just passed its first three-year milestone. How did doctors measure up? Of the 1,750 who had to meet the December 31 deadline, 1,203 had the required 120 hours. Some asked for and received extensions, some are close to the mark, but over 200 doctors had fewer than 50 hours or had not reported. If they keep practicing, it will be illegally.



Pro-Banthine®
brand of
propantheline bromide

Indications: Pro-Banthine is effective as adjunctive therapy in the treatment of peptic ulcer. Dosage must be adjusted to the individual.

Contraindications: Glaucoma, obstructive disease of the gastrointestinal tract, obstructive uropathy, intestinal atony, toxic megacolon, hiatal hernia associated with reflux esophagitis, or unstable cardiovascular adjustment in acute hemorrhage.

Warnings: Patients with severe cardiac disease should be given this medication with caution. Fever and possibly heat stroke may occur due to anhidrosis.

Overdosage may cause a curare-like action, with loss of voluntary muscle control. For such patients prompt and continuing artificial respiration should be applied until the drug effect has been exhausted. Diarrhea in an ileostomy patient may indicate obstruction, and this possibility should be considered before administering Pro-Banthine.

Precautions: Since varying degrees of urinary hesitancy may be evidenced by elderly males with prostatic hypertrophy, such patients should be advised to micturate at the time of taking the medication.

Overdosage should be avoided in patients severely ill with ulcerative colitis.

Adverse Reactions: Varying degrees of drying of salivary secretions may occur as well as mydriasis and blurred vision. In addition the following adverse reactions have been reported: nervousness, drowsiness, dizziness, insomnia, headache, loss of the sense of taste, nausea, vomiting, constipation, impotence and allergic dermatitis.

Dosage and Administration: The recommended daily dosage for adult oral therapy is one 15-mg. tablet with meals and two at bedtime. Subsequent adjustment to the patient's requirements and tolerance must be made.

How Supplied: Pro-Banthine is supplied as tablets of 15 and 7.5 mg., as prolonged-acting tablets of 30 mg. and, for parenteral use, as serum-type vials of 30 mg.

SEARLE **Searle & Co.**
San Juan, Puerto Rico 00936

Address medical inquiries to: G. D. Searle & Co.
Medical Department, Box 5110, Chicago, Ill. 60680 481

"Antiacid" action for ulcer patients...

one of the many things you need in an anticholinergic.



Pro-Banthine is considered adjunctive in total peptic ulcer therapy that may include diet, conventional antacids, bed rest, and other supportive measures.

Pro-Banthine is provided in several different dosage forms which will meet virtually any clinical need. It is just as versatile in filling patient needs, among which are:

"Antiacid" action—Pro-Banthine® (propantheline bromide) reduces gastric secretory volume and resting total and free acid.

"Analgesic" action—Pro-Banthine helps to control the acid-spasm-pain complex.

Vigorous anticholinergic action—Pro-Banthine® Vials, 30 mg., are for intramuscular or intravenous use when prompt and vigorous anticholinergic action is required.

Mild anticholinergic action—Pro-Banthine® Half Strength, 7.5 mg. tablets, for more exact adjustment of maintenance dosage in mild to moderate gastrointestinal disorders.

Pro-Banthine®
(propantheline bromide)

a good option in peptic ulcer

In most cases of sustained moderate hypertension,

ALDOMET® (METHYLDOPA|MSD) usually offers more than effective lowering of blood pressure...



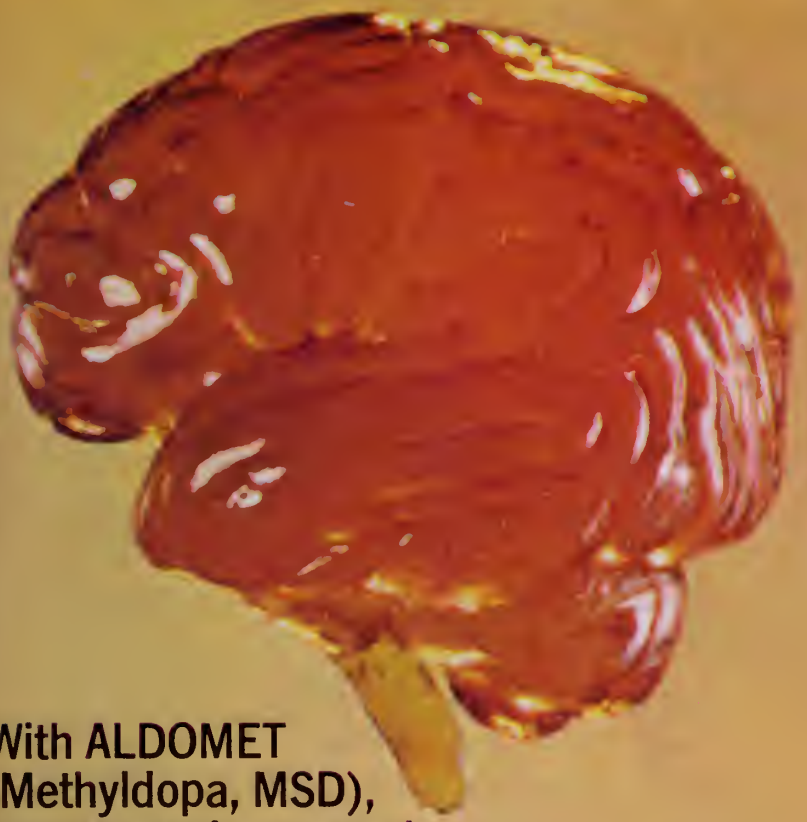


With ALDOMET (Methyldopa, MSD), existing renal function is usually unchanged

ALDOMET has no direct effect on renal function. When used in effective doses, ALDOMET usually does not reduce glomerular filtration rate, renal blood flow, or filtration fraction.

With ALDOMET (Methyldopa, MSD), cardiac output is generally unchanged

ALDOMET has no direct effect on cardiac function. When ALDOMET is used in effective doses cardiac output is usually maintained with no cardiac acceleration; in some patients the heart rate is slowed.



With ALDOMET (Methyldopa, MSD), symptomatic postural hypotension is infrequent

ALDOMET reduces both supine and standing blood pressure. Less frequent symptomatic postural hypotension is experienced with ALDOMET than with many other antihypertensive agents. Exercise hypotension and diurnal blood pressure variations rarely occur.

for sustained moderate hypertension

TABLETS, 250 mg and 500 mg

ALDOMET®

(METHYLDOPA|MSD)

a unique antihypertensive agent

Contraindications include active hepatic disease and known sensitivity to the drug. Use with caution in patients with a history of liver disease or dysfunction. Not recommended in pheochromocytoma or pregnancy.

It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. For more details see the brief summary of prescribing information.



MSD
MERCK SHARP & DOHME

For a brief summary of prescribing information, please see following page.

addendum

MSD
MERCK SHARP & DOHME

to further simplify therapy for many patients

now available

ALDOMET® 500 mg

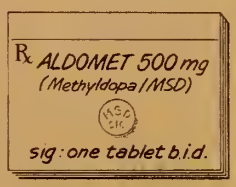
(METHYLDOPA | MSD)

- **often more practical to prescribe**
- **easier for patients to remember**

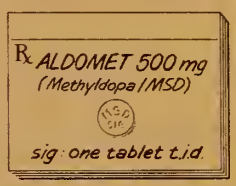
Now offered in addition to the standard 250-mg tablet, the new ALDOMET 500 mg tablet is a patient convenience. An especially important one, since in hypertension convenience of the dosage schedule is one factor that can make the difference in compliance of the patient. The minimum daily dose of ALDOMET is 250 mg b.i.d. The usual starting dose is 250 mg t.i.d. Dosage is adjusted as necessary by adding or deleting 250 mg or 500 mg at intervals of not less than two days. The maximum dose is 3.0 g per day.

Examples of b.i.d. or t.i.d. dosage convenience provided by ALDOMET 500 mg within the usual daily dosage range of 500 mg to 2.0 g:

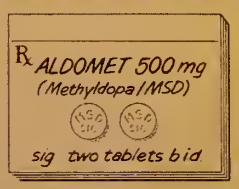
1.0-g daily dose =

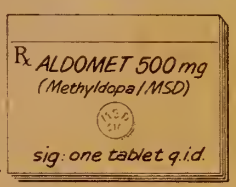


1.5-g daily dose =



2.0-g daily dose =





NOTE: Tablets shown are not actual size.

in sustained moderate hypertension

ALDOMET® (METHYLDOPA|MSD)

usually lowers blood pressure effectively



Contraindications: Active hepatic disease, such as acute hepatitis and active cirrhosis. Known sensitivity. Not recommended in pheochromocytoma. Unsuitable in mild or labile hypertension responsive to mild sedation or thiazide therapy. Use cautiously in patients with history of previous liver disease or dysfunction.

Warnings: It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. Read this section carefully to understand these reactions.

With prolonged methyldopa therapy, 10% to 20% of patients develop a positive direct Coombs test, usually between six and twelve months of therapy. Lowest incidence is at daily dosage of 1 g or less. This on rare occasions may be associated with hemolytic anemia, which could lead to potentially fatal complications. One cannot predict which patients with a positive direct Coombs test may develop hemolytic anemia. Prior existence or development of a positive direct Coombs test is not in itself a contraindication to use of methyldopa. If a positive Coombs test develops during methyldopa therapy, determine whether hemolytic anemia exists and whether the positive Coombs test may be a problem. For example, in addition to a positive direct Coombs test there is less often a positive indirect Coombs test which may interfere with cross matching of blood.

At the start of methyldopa therapy, it is desirable to do a blood count (hematocrit, hemoglobin, or red cell count) for a baseline or to establish whether there is anemia. Periodic blood counts should be done during therapy to detect hemolytic anemia. It may be useful to do a direct Coombs test before therapy and at six and twelve months after the start of therapy. If Coombs-positive hemolytic anemia occurs, the cause may be methyldopa and the drug should be discontinued. Usually the anemia remits promptly. If not, corticosteroids may be given and other causes of anemia should be considered. If the hemolytic anemia is related to methyldopa, the drug should not be reinstituted. When methyldopa causes Coombs positivity alone or with hemolytic anemia, the red cell is usually coated with gamma globulin of the IgG (gamma G) class only. The positive Coombs test may not revert to normal until weeks to months after methyldopa is stopped.

Should the need for transfusion arise in a patient receiving methyldopa, both a direct and an indirect Coombs test should be performed on his blood. In the absence of hemolytic anemia, usually only the direct Coombs test will be positive. A positive direct Coombs test alone will not interfere with typing or cross matching. If the indirect Coombs test is also positive, problems may arise in the major cross match and the assistance of a hematologist or transfusion expert will be needed.

Fever has occurred within first three weeks of therapy, sometimes with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first two to three months of therapy. In some patients the findings are consistent with those of cholestasis. Rarely fatal hepatic necrosis has been reported. These hepatic changes may represent hypersensitivity reactions; periodic determination of hepatic function should be done particularly during the first six to twelve weeks of therapy or whenever an unexplained fever occurs. If fever, abnormalities in liver function tests, or jaundice appear, stop therapy with methyldopa. If caused by methyldopa, the temperature and abnormalities in liver function characteristically have reverted to normal when the drug was discontinued. Methyldopa should not be reinstituted in such patients.

Rarely, reversible reduction in leukocyte count with primary effect on granulocytes has been seen. Reversible thrombocytopenia has occurred rarely. When used with other antihypertensive drugs, potentiation of antihypertensive effect may occur.

Use in Pregnancy and Childbearing Age–Not recommended in pregnancy. In women of childbearing age, weigh potential benefits against possible fetal hazards.

Precautions: Methyldopa may interfere with measurement of: uric acid by the phosphotungstate method, creatinine by the alkaline picrate method, and SGOT by colorimetric methods. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, spuriously high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. Stop drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Patients may require reduced doses of anesthetics; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension has occurred after dialysis in patients on methyldopa because the drug is removed by this procedure.

Adverse Reactions: Sedation, usually transient, may be seen during initial therapy or when dosage is increased. Headache, asthenia, or weakness may be noted as early, transient symptoms. Symptoms associated with effective lowering of blood pressure are occasionally seen and include dizziness, lightheadedness, and symptoms of cerebrovascular insufficiency. Angina pectoris may be aggravated. Symptoms of orthostatic hypotension may occur; if symptoms occur, reduction of dosage is suggested. Bradycardia, nasal stuffiness, mild dryness of mouth, and gastrointestinal symptoms including distention, constipation, flatus, and diarrhea occur occasionally; these generally can be relieved by reducing dosage. Nausea and vomiting have been reported in only a few patients. Sore tongue or "black tongue," pancreatitis, and inflammation of salivary glands may occur.

Weight gain and edema occur infrequently and are relieved by administering a thiazide diuretic; if edema progresses or signs of pulmonary congestion appear, discontinue drug. A rise in BUN has been observed. Other rare reactions include breast enlargement, lactation, impotence, decreased libido, skin rash, mild arthralgia, myalgia, paresthesias, Bell's palsy, parkinsonism, psychic disturbances including nightmares, reversible mild psychoses or depression. Urine exposed to air after voiding may darken because of breakdown of methyldopa or its metabolites.

Note: Dosage should be limited initially to 500 mg daily when following previous antihypertensive agents other than thiazides. Maximal recommended daily dose is 3.0 g. Patients with impaired renal function may respond to smaller doses than patients with normal kidney function. Syncope in older patients has been related to increased sensitivity in those with advanced arteriosclerotic vascular disease; this may be avoided by lower doses. Tolerance occasionally seen either early or late, but more likely between second and third month after initiation of therapy; increased dosage or combined therapy with a thiazide frequently restores effective control.

How Supplied: Tablets, containing 250 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 1000; Tablets, containing 500 mg methyldopa each, in single-unit packages of 100 and bottles of 100.

For more detailed information, consult your MSD representative or see full prescribing information
Merck Sharp & Dohme, Division of Merck & Co., INC.
West Point, Pa. 19486

MSD MERCK SHARP & DOHME

This year maybe you shouldn't buy a car at all. Look into leasing a Mercedes-Benz.



Searching for a new car? If you are like most buyers, you can count on spending six weekends before you settle on a deal.

But maybe you shouldn't be *buying* a car at all. Maybe you should be leasing one. Last year, nearly one out of every four new cars was leased. It's making sense for more and more people. Especially Mercedes-Benz leasing.

A Mercedes-Benz depreciates slower than any luxury car made in America. So there are unique advantages in leasing one.

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Ortho announces
a unique,
broad-spectrum
anthelmintic
effective against
whipworm...
new
Vermox
TRADEMARK
chewable
tablets
(mebendazole)
©OPC

...and highly effective
against roundworm, hookworm and pinworm
in single or mixed infections



No dosage calculations — one simplified dosage, regardless of weight or age†

Whipworm, roundworm, hookworm and mixed infections:
1 chewable tablet b.i.d. for 3 consecutive days
Pinworm: 1 chewable tablet

†If the patient is not cured three weeks after treatment, a second course of treatment is advised.

Highly effective

	Mean cure rates	Mean egg reduction
Whipworm	68%	93%
Roundworm	98%	99.7%
Hookworm	96%	99.9%
Pinworm	95%	— — —

Simplicity of administration patients can take the tablet at any time. Can be chewed, swallowed or crushed and mixed with food. No messy liquids to pour.

Not a dye new Vermox* (mebendazole) chewable tablets will not stain clothes, teeth, feces, toilet bowls, etc.

Convenient neither laxatives nor special diet required. Therapy does not interfere with daily activities.

Well tolerated transient symptoms of abdominal pain and diarrhea have occurred in cases of massive infection and expulsion of worms.

Vermox has not been extensively studied in children under 2 years of age, and thus, the relative benefit/risk should be considered before treating these children. Vermox is contraindicated in pregnant women. (see: Pregnancy Precautions) and in persons who have shown hypersensitivity to the drug.

Indications Vermox* (mebendazole) is indicated for the treatment of *Trichuris trichiura* (whipworm), *Enterobius vermicularis* (pinworm), *Ascaris lumbricoides* (roundworm), *Ancylostoma duodenale* (common hookworm), *Necator americanus* (American hookworm) in single or mixed infections.

Efficacy varies in function of such factors as pre-existing diarrhea and gastrointestinal transit time, degree of infection and helminth strains. Efficacy rates derived from various studies are shown in the table below:

	Trichuris	Ascaris	Hookworm	Pinworm
Cure rates (mean range)	68% (61-75%)	98% (91-100%)	96% —	95% (90-100%)
Egg reduction (mean range)	93% (70-99%)	99.7% (99.5-100%)	99.9% —	— —

Contraindications Vermox is contraindicated in pregnant women (see Pregnancy Precautions) and in persons who have shown hypersensitivity to the drug.

Precautions *PREGNANCY:* Vermox has shown embryotoxic and teratogenic activity in pregnant rats at single oral doses as low as 10 mg/kg. Since Vermox may have a risk of producing fetal damage if administered during pregnancy, it is contraindicated in pregnant women.
PEDIATRIC USE: The drug has not been extensively studied in children under two years; therefore, in the treatment of children under two years the relative benefit/risk should be considered.
Adverse reactions Transient symptoms of abdominal pain and diarrhea have occurred in cases of massive infection and expulsion of worms.
Dosage and administration The same dosage schedule applies to children and adults.
For control of trichuriasis, ascariasis, and hookworm infection, one tablet of Vermox is administered morning and evening on three consecutive days. For control of enterobiasis, a single tablet of Vermox is given.
If the patient is not cured three weeks after treatment, a second course of treatment is advised. No special procedures, such as fasting or purging, are required.
How supplied Vermox is available as tablets, each containing 100 mg of mebendazole, and is supplied in boxes of twelve tablets.

*TRADEMARK

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Ortho Pharmaceutical Corporation,
Raritan, New Jersey 08869

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1. Patient acceptable tablet dose.
2. Single entity expectorant.
3. Measured tablet dose.
4. Sugar-free tablet.

An identifiable white, scored tablet which significantly stimulates the secretion of respiratory tract fluid.

Composition: Each sugar-free compressed tablet contains glyceryl guaiacolate 100mg **Action and Use:** This preparation utilizes the effective expectorant action of glyceryl guaiecolate which significantly stimulates the secretion of respiratory tract fluid. The increased flow of less viscid fluid favors expectoration and has a demulcent effect on the tracheobronchial mucosa. The primary usefulness of Hytuss Tabs is to promote the change from a dry, unproductive cough to a productive cough. Hytuss is therefore useful in treating coughs due to the common cold, bronchitis, laryngitis, tracheitis, pharyngitis, influenza and the measles. The expectorent action of Hytuss may also provide symptomatic relief in some chronic respiretory disorders when the patient experiences spasms of dry nonproductive coughing. **Preceutions**: Extremely large emounts may cause nausea end vomiting. **Administretion and Dosage:** *Adults*—1 tablet four times deily. *Children*—6 to 12 years of age; ½ teblet 3 or 4 times daily. HOW SUPPLIED: White, scored, sugar-free, tablet in bottles of 100 - 1,000 - 5,000. **Product Identification Mark:** Hy. **Literature Availabie:** On roquest.

Available through all drug wholesalers.

Hyrex

HYREX COMPANY
832 South Cooper
Memphis, Tenn. 38104

respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as the excessive anxiety is relieved, the depressive symptoms associated with it are also often relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.

For further information on this subject, the following references are provided:

1. Henry BW, *et al: Dis Nerv Syst 30*:675-679, Oct 1969.
2. Hollister LE, *et al: Arch Gen Psychiatry 24*:273-278, Mar 1971.
3. Claghorn J: *Psychosomatics 11*:438-441, Sept-Oct 1970.



Valium® (diazepam)

2-mg, 5-mg, 10-mg tablets

in psychoneurotic anxiety states with associated depressive symptoms

surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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The MUDRANES

Discreet formulations of four well regarded drugs for the relief of bronchial distress—Potassium Iodide, Glyceryl Guaiacolate, Aminophylline, Ephedrine with Phenobarbital (to lessen cardiac stimulation).



INDICATIONS: For the prompt symptomatic relief of bronchial asthma, emphysema and bronchiectasis. The Mudranes dilate the bronchi and liquefy mucus plugs. DOSAGE: Tablet; One tablet with a full glass of water 3 or 4 times daily as required. Divide tablet for child's dose. Elixir; Children, 1 cc for each 10 lbs. of body weight. May be repeated 3 or 4 times a day. Adult, one tablespoonful 4 times daily. All doses should be followed with a glass of water.

CONTRAINDICATIONS: Aminophylline Theophylline is contraindicated in the presence of severe cardiac arrhythmias and patients with massive myocardial damage. Ephedrine, in presence of severe heart disease, extreme hypertension, and in hyperthyroidism. Phenobarbital, in porphyria and in patients with known phenobarbital sensitivity. Potassium Iodide, in pregnancy (to protect the fetus against possible iodine-induced depression of thyroid activity), in tuberculosis (produces gumma dissolution), and in acne; also in the presence of known iodide sensitivity. PRECAUTIONS: Aminophylline Theophylline should be avoided in patients with massive myocardial damage and/or severe cardiac arrhythmias. In children, overdose may cause vomiting, cardiac arrhythmias, and severe agitation. Ephedrine should be used with caution in the presence of severe cardiac disease, particularly arrhythmias and angina pectoris; avoid in hyperthyroidism and severe hypertension. Phenobarbital may be habit-forming. Avoid overdosage. Potassium Iodide: Discontinue in the presence of skin rash, swelling of the eyelids and severe frontal headache. Long use may cause goiter. ADVERSE REACTIONS: Aminophylline/Theophylline may cause nausea, cardiac arrhythmias, and aggravate severe myocardial disease. It may cause headaches and tachycardia. Vomiting and dizziness are not uncommon. Ephedrine: In patients hypersensitive to CNS stimulation, ephedrine may cause nervousness, tachycardia, extrasystole and ventricular arrhythmias. May cause urinary retention, especially in the presence of partial prostatic obstruction. Psychoneurosis may be aggravated. Pre-existing anginal pain will be aggravated. Phenobarbital may produce severe skin rash. Avoid overdosage. May be habit-forming. Potassium Iodide may cause nausea. Over very long period of use, iodides cause goiter. Discontinue if patient develops skin rash, eye irritation, eyelid swelling, or severe frontal headache.

HOW SUPPLIED: Mudrane and Mudrane GG available in bottles of 100 and 1000 tablets; Mudrane-2 and Mudrane GG-2 in 100s; Elixir in pints and half-gallons.

Federal law prohibits dispensing without prescription.

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MASA President, E. Vernon Stabler, Sr., M.D., was highly complimentary in his remarks to the Board of Censors at its May meeting in regard to the new Council structure of the Association and the energy with which the Councils organized themselves for the first time on Sunday, May 18.

The new Council system replaces the previous cumbersome and top-heavy committee system which encouraged jurisdictional confusion and overlapping of responsibilities.

***

In years past, almost any subject or organizational problem could have been referred to several committees simultaneously. When the new Constitution and Bylaws was adopted at the Annual Session in Birmingham, all committees were automatically abolished and five Councils to work in rigidly specified areas were created.

A sixth Council, composed of one Representative from each recognized specialty organization in the State, will continue to function in both a liaison capacity to the Association and for such special functions as development of PSRO treatment criteria, relative value index study and other assignments of this nature.

Each Council is composed of five members who were selected on the basis of their expertise and previous records of dedicated service. In organizing, each Council elected a chairman and some elected a vice-chairman.

***

While the Constitution provides that Councils may create committees for specific purposes, President Stabler requested them during an orientation meeting to proceed slowly in this respect and first determine whether a real and pressing need beyond the capability of the Council made such action necessary. He warned that a proliferation of committees to consider subjects of marginal import would result in poor attendance by committee members and results of dubious value not in proportion to Association expenses involved.

All Councils plunged immediately into their spheres of interest. A digest of their actions was delivered three days later to the Board of Censors which gave unanimous concurrence followed by expressions of appreciation to the 25 dedicated physicians who have consented to tackle the problems of their colleagues in medicine.



For more information on exciting things to see and do in you own state, write Alabama Travel Department, State Capitol, Montgomery, Alabama 36104.

MESSAGE FROM THE PRESIDENT



Let Us Get Back To Basics

E. Vernon Stabler, Sr., M.D.

Each week in the *American Medical News* paper, the editor poses the inevitable question, "What Has The AMA Done For You Lately?" A portion of the weekly editorial page is devoted to straightline answers of that question, sort of a unique way of "promoting" AMA membership to those physicians who have yet to join. It is an eye-catching feature and certainly one which merits your attention if you are to keep abreast of AMA programs and services.

With this in mind, I would like to play upon the idea for a moment and ask you to consider your professional role in life, your professional relationship with your colleagues and your Medical Association. You are a physician! What have you done lately for your medical profession?

At no other time in the history of medicine has your active aid and participation for the protection of the freedom to practice medicine been needed as today. Never in the 114 years of the Medical Association of the State of Alabama has there been a single year so crucial to its functions as 1975.

Each year there seems to be a more acute need for active involvement to protect our rights to deliver medical services in our own way. No one, no group, no controlling action is so well equipped to formulate the rules that govern the health delivery system for Alabama as the Medical Association of the State of Alabama. That means us, every one of us, working as a unit.

Our first and most important duty is to be very diligent in our own delivery of excellent health care.

Secondly, comes our responsibility in disseminating information and methodology to the public and to the official representations of government.

In the third place, we must be sure that guidance in all health matters is not just available, but actually given wherever the need is presented. To be specific, we must have active participation in our local societies. Only in the last few weeks, we have been found wanting in many instances of health care supervision: in the prison system, the county public health system, the school system, and many others, all of which are spelled out as our responsibility through our county units.

Surely a fourth field of accountability lies with the individual physician, in establishing a close personal relationship with those he serves. In this way, he can meet the needs of those who seek him as counselor, friend and confidant, as no other can.

It seems of value in these times to reaffirm the noble standards our forefathers deemed of such worth, for in our profession they have not lost their meaning. We, as physicians, must so live that we can be recognized as the kind of individuals our profession is proud to proclaim—dedicated men and women of integrity—which is neither more nor less than is required of all people of good report. It may seem trite and unnecessary to speak of loyalty to our professional code, support of our profession and a position which is acceptable to our noblest image. Yet in all seriousness, these are the fundamentals by which we and our profession are known in our communities.

More individual knowledge, broader scope of the medical services, more sophisticated tools, the demands of much larger practices and the acceleration in all aspects of life would seem to negate the close, personal, doctor-patient relationship and focus more on the factual approach to disease and its statistical results. However, let us never forget that progress in our profession, as in all life, is built on the sure foundation of the past.

Our heritage is rich; our calling is noble. Familiar names such as Rush, Sims and Cochran dot the pages of our history. They , as others, established the pathway from which we can never depart. We learn from our past in order to prepare for a better tomorrow; a tomorrow that is determined by our actions today.

No other Malpractice Insurance Coverage fits the Doctors of Alabama so well . . .

The premium cost you pay for the Wausau Special Malpractice Insurance Policy will be based **only** on Alabama loss experience. So you don't pay to help cover losses in such "claims conscious" areas as Florida (Dade County), New York or California. No other insurance company has consented to these terms. Which is just one of the ways you benefit yourself — and the entire Alabama medical community — when you subscribe to this coverage. For information on additional benefits, contact **MASA Insurance Department, 19 South Jackson Street, Montgomery, Alabama 36104. Or call (800) 392-5668 toll free.**





editorials
editorials

Sidestepping The Crisis

All across the country, State legislatures are grappling for solutions to the mushrooming malpractice insurance crisis. Here in Alabama, the long-awaited plan of the Medical Association of the State of Alabama to prevent a worsening of the problem has now been unveiled.

After long and careful study of the many different solutions proposed in other States, MASA's General Counsel has drafted a bill for the Legislature's consideration which includes the best features of all the others.

No one expects the Alabama bill, if enacted into law, to be an instant panacea for what the late Dr. S. Buford Word was wont to describe as "these litigious times." But, it is hoped that at long last we will be able to winnow the unavoidable medical accident from those rare instances of physician culpability.

No one denies that a patient who has suffered physical damage, with loss of earning power and deprivation, should be compensated. When a man is sick or lamed, it does not terminate the need of his family and himself for life's necessities. Should this happen to him as a result of an industrial accident, his needs would be met under the Workmen's Compensation laws. Should he be injured in the collision of a public or private conveyance, his own or the other party's accident liability insurance most likely would afford him financial relief.

Unfortunately, no cushion exists for the person who is incapacitated by a medical or surgical accident, except to convict the doctor, hospital or other provider of neglect or improper treatment.

The legislation proposed by this Association is intended solely for the purpose of correcting this lapse in our legal process. It is not intended as a reflection upon either the attorney or the insurance industry. In fact, the Alabama Patient Compensation Bill will result in higher compensation for the patient, less expensive litigation costs, quicker judgments for members of the Bar and more accurate determination of justifiable premium rates by the insurance carriers.

Everyone should benefit by passage of this bill. This Journal sincerely hopes that the men of Medicine and the friends of Medicine will rally to this cause and encourage the legislature to quickly correct an evil situation which has too long existed.

The Masada Complex?

After the fall of Jerusalem in 70 A.D., Masada, a boat-shaped rock rising more than 1,300 feet above the Dead Sea, remained as the last undefeated outpost of Zealot rebels. The defenders numbered 960 men, women and children.

The Jewish rebellion in 66 A.D. against Roman occupation had seemingly reached its zenith. Masada had become more than just a rock; it had become a symbol of sovereignty and steadfastness. It was the last surviving fortification of Jewish resistance against the thousands of invading and invincible Romans. When the Roman soldiers finally poured through a breach in the wall, they were met with silence. Rather than submit to slavery, the defenders believed it better to take their own lives. They committed mass suicide rather than give the Romans the satisfaction of surrender. Through the years, Masada has continued to be a symbol of strength and unity to the citizens of Israel.

The medical profession is under constant seige, constant attack by Federal strategists. They seek, time after time, to storm the walls of good medical practice. They have laid down a constant barrage of Federal programs in the name of "better health care for the citizens of America." Under a covering fusillade of senatorial verbiage and H.E.W. dictum, they have converged their powerful forces into position, awaiting the blare of the bugle as the final signal to "no quarter."

If the assault is accomplished, it seems that more red tape and preponderant levels of bureaucracy will triumphantly ride in on the coattails of the Federal government's "Four Horsemen of the Apocalypse": NHI, PSRO, HMO and Public Law 93-641. The death knell will then sound for the private practice of medicine and the casket will be sealed on a good and efficient health care delivery system.

Officials of the AMA and MASA constantly urge unification in the fight to combat this tide of Federal intervention. Repeated encouragement to Alabama physicians to participate more in the activities of this Association have resulted in a stronger and more effective professional organization. MASA has become a tower of strength with which to be reckoned, but thankfully, in a way different from the call for a "final stand" heard today from anti-Federal forces.

MASA and Masada have only one thing in common – their first four letters. Mass annihilation of principles and self-respect is not the answer to the problems besetting modern medicine. A throwing of the hands upward and saying "What the heck?" is anathema to all that is time-honored and basic to the Hippocratic Oath.

The answer lies within a "coming together of the minds"; organized medicine and government, joining forces to bridge troubled waters. It really means going that extra mile to ensure that the best interests of the people are served. It means standing up and being counted as one willing to implement new changes and programs which have not been put together in piecemeal fashion. It means that the government must heed medicine's suggestions and not turn a deaf ear to those to whom it is responsible – its citizens.

One particular doctor in Louisiana has already given up and sent a personal letter to each of his patients announcing his intentions to dissolve his private practice of medicine, effective May 1, 1975. He reasons that government rules would tie his hands and that a "medical cookbook" from Washington would tell him how to treat a patient. He adds national health insurance and a feeling that patients will become mere "numbers in the new system" into the pot of his discontent. He states that after long consideration, he feels that this is his only alternative. By his action, has he found the answer? Does the Masada complex exist for him?

In time, the ultimate judge will be whether or not the health and welfare needs of citizens are being met adequately. Now is the time to lay down weapons and erase battle lines. Medicine and government can avoid the ensuing conflict by seeking common grounds which will establish a better health care delivery system in the end. Such a conflict could not long continue without leaving scars upon those for whom it was enjoined – the American people.

Family Practice Board Announces Recertification Plan

The American Board of Family Practice (ABFP) recently mailed to diplomates certified in 1970 a package of information containing requirements and procedures for the 1976 recertification examination.

These diplomates will be the first ABFP group to undergo mandatory recertification, *the first such group in U. S. medicine.* Required recertification, to which candidates agree upon becoming certified, was written into the bylaws of the new specialty of family practice when it was founded in 1969.

This class of some 1,700 diplomates must:

– Take a half-day written examination October 29, 1976;

– Review 20 patient charts and submit answers to a set of questions about each prior to the exam.

The written exam will account for a major portion of the diplomate's score. The charge for the process will be $150, as opposed to $300 for the regular certification procedure.

Two eligibility requirements apply to all diplomates seeking recertification:

– A written statement, which will be corroborated, that the candidate holds unrestricted licensure(s).

– Proof that the candidate has completed 300 hours of acceptable continuing education in the last six years.

About June 1, 1975, the Board will mail applications to diplomates certified in 1970. These must be returned to the Board office in Lexington, Ky., by November 1, 1975. Each applicant then will receive questionnaires for the record review portion of the recertification process. They will be allowed several weeks to complete the task.

This is how the records review will work:

Each diplomate will select five disease categories from a list of 10, and select four charts dealing with each of the chosen categories (a total of 20 charts); then complete a questionnaire reporting whether or not certain key items of information concerning the patient's care are contained in his or her chart. These questionnaires (not the actual charts) will be sent to the ABFP for evaluation.

Applicants will be notified of their eligibility to sit for the cognitive exam well in advance of the October 29, 1976, examination date. The exam will be offered at five test sites.

in Brief

A summary of AMA, medical & health news

The AMA's new NHI plan --the Comprehensive Health Care Insurance Act--was introduced in Congress late in April. It builds on the existing structure of employer-employee group health insurance plans. Each employer would be mandated to provide comprehensive and catastrophic benefit coverage and pay at least 65% of the cost. Employees would not be compelled to participate. Under the plan the self-employed and unemployed could purchase qualified private health insurance, with the government paying all or part of the premium, depending on income tax liability. Medicare beneficiaries could purchase supplemental insurance, with the government assisting people with limited incomes. Medicaid would be eliminated. Small businesses that would be burdened by the mandated plan would receive assistance from the government. State governments would regulate insurance, subject to federal guidelines established by a 15-member Health Insurance Advisory Board.

AMA legislation to improve rural health care was also introduced in April. It would establish an Office of Rural Health within HEW, to award grants, contracts, loans and loan guarantees for projects to examine existing models of care and to assist in planning, development and demonstration of rural health care delivery models. The bill authroizes $75 million for fiscal 1976, $100 million for fiscal 1977, and $125 million for fiscal 1978. An 11-member advisory committee would make recommendations on planning, policies and priorities to the HEW office.

AMA-ERF sent checks totaling $1,016,392 to the nation's 115 medical schools last month.

Available from AMA: *Compendium of Military Allied Medical Education,* providing factual information on military training for all allied health occupations, free from Dept. of Allied Medical Professions and Services, AMA Headquarters... The *1974-75 Directory of Approved Residencies.* Cost for OP-378 is $2 in the U.S. and $2.50 in other countries. Write Order Dept., AMA Headquarters...*A Report on Professional Health Provider Participation--EPSDT/ Medicaid,* free from Dept. of Rural and Community Health, AMA Headquarters.

when pain goes on... and on... and on–



For the patient with a terminal illness, PAIN past, present, and future can dominate his thoughts until it becomes almost an obsession. The more he is aware of the pain he is now experiencing, the more difficult it is to erase his memory of yesterday's pain, and to allay his fearful anticipation of tomorrow's pain.

Surely the last thing this patient needs is an analgesic containing caffeine to stimulate the senses and heighten pain awareness. A far more logical choice is Phenaphen with Codeine. The sensible formula provides ¼ grain of phenobarbital to take the nervous "edge" off, so the rest of the formula can help control the pain more effectively. Don't you agree, Doctor, that psychic distress is an important factor in most of your terminal and long-term convalescent patients?

the analgesic formula that calms instead of caffeinates

Phenaphen® with Codeine

Phenaphen with Codeine No. 2, 3, or 4 contains: Phenobarbital (¼ gr.), 16.2 mg. (warning: may be habit forming); Aspirin (2½ gr.), 162.0 mg.; Phenacetin (3 gr.), 194.0 mg.; Codeine phosphate, ¼ gr. (No. 2), ½ gr. (No. 3) or 1 gr. (No. 4) (warning: may be habit forming).

Indications: Provides relief in severer grades of pain, on low codeine dosage, with minimal possibility of side effects. Its use frequently makes unnecessary the use of addicting narcotics. **Contraindications:** Hypersensitivity to any of the components. **Precautions:** As with all phenacetin-containing products, excessive or prolonged use should be avoided. **Side effects:** Side effects are uncommon, although nausea, constipation and drowsiness may occur. **Dosage:** Phenaphen No. 2 and No. 3—1 or 2 capsules every 3 to 4 hours as needed; Phenaphen No. 4—1 capsule every 3 to 4 hours as needed. For further details see product literature.

(III) Phenaphen with Codeine is now classified in Schedule III, Controlled Substances Act of 1970. Available on written or oral prescription and may be refilled 5 times within 6 months, unless restricted by state law.

A. H. Robins Company, Richmond, Va. A·H·ROBINS

Maybe the patient's self-diagnosis is right. He could have hay fever. But that bright red nasal mucosa, along with the thick discharge and excoriation around the nares, strongly suggests that the main problem is a cold. Hay fever or another form of allergic rhinitis may or may not be an underlying factor.

If a complete history and examination rule out allergic rhinitis, the long-term outlook will be a lot more favorable than his own "diagnosis" would have indicated.

But right now, whether he's got allergic rhinitis or a cold, he's suffering from the same irritating symptoms of drip, congestion and stuffiness. Try DIMETAPP EXTENTABS®. They're formulated to relieve these symptoms without much chance of causing drowsiness or overstimulation. Your patients will appreciate the 24-hour relief they can get from just one tablet every 12 hours.

Cold or Allergy?



Whether it's a cold or an allergy, Dimetapp Extentabs® effectively relieve stuffiness, drip and congestion.

INDICATIONS: Dimetapp Extentabs are indicated for symptomatic relief of allergic manifestations of upper respiratory illnesses, such as the common cold, seasonal allergies, sinusitis, rhinitis, conjunctivitis and otitis. In these cases it quickly reduces inflammatory edema, nasal congestion and excessive upper respiratory secretions, thereby affording relief from nasal stuffiness and postnasal drip.

CONTRAINDICATIONS: Hypersensitivity to antihistamines of the same chemical class. Dimetapp Extentabs are contraindicated during pregnancy and in children under 12 years of age. Because of its drying and thickening effect on the lower respiratory secretions, Dimetapp is not recommended in the treatment of bronchial asthma. Also, Dimetapp Extentabs are contraindicated in concurrent MAO inhibitor therapy.

WARNINGS: *Use in children.* In infants and children particularly, antihistamines in overdosage may produce convulsions and death.

PRECAUTIONS: Administer with care to patients with cardiac or peripheral vascular diseases or hypertension. Until the patient's response has been determined, he should be cautioned against engaging in operations requiring alertness such as driving an automobile, operating machinery, etc. Patients receiving antihistamines should be warned against possible additive effects with CNS depressants such as alcohol, hypnotics, sedatives, tranquilizers, etc.

ADVERSE REACTIONS: Adverse reactions to Dimetapp Extentabs may include hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia, drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, hypotension/hypertension, headache, faintness, dizziness, tinnitus, incoordination, visual disturbances, mydriasis, CNS-depressant and (less often) stimulant effect, anorexia, nausea, vomiting, diarrhea, constipation, and epigastric distress.

HOW SUPPLIED: Light blue Extentabs in bottles of 100 and 500.

Dimetapp Extentabs®

Dimetane® (brompheniramine maleate), 12 mg.; phenylephrine HCl, 15 mg.; phenylpropanolamine HCl, 15 mg.

A·H·ROBINS

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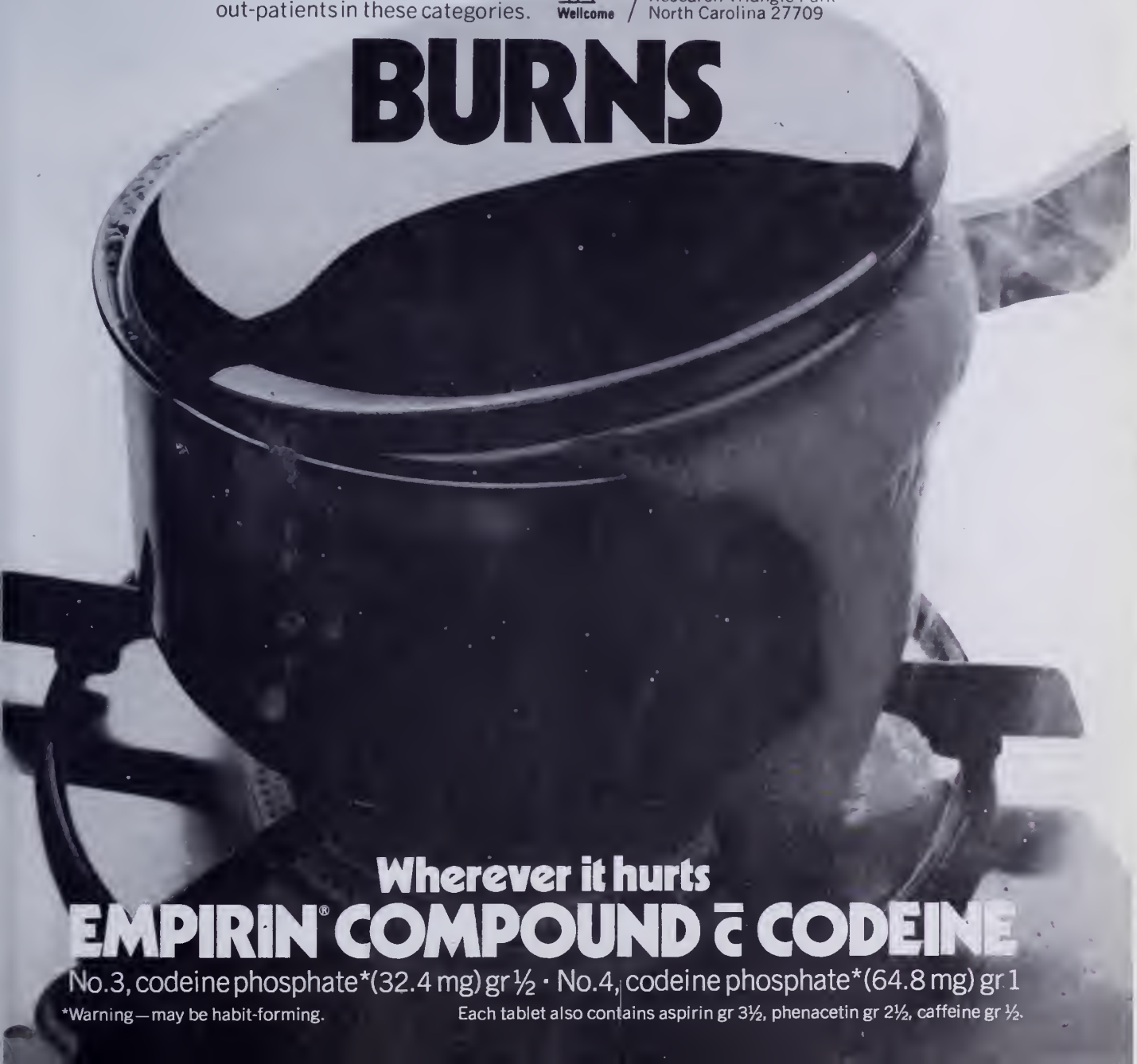
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Wherever it hurts

EMPIRIN® COMPOUND c CODEINE

No.3, codeine phosphate*(32.4 mg) gr ½ · No.4, codeine phosphate*(64.8 mg) gr 1

*Warning—may be habit-forming.

Each tablet also contains aspirin gr 3½, phenacetin gr 2½, caffeine gr ½.

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Bad Medicine

By JOHN DENNIS

Suppose that some afternoon you check into one of Metro Atlanta's 40 hospitals for a boring evening of TV and bed checks — and an operation the next morning. You're wheeled to surgery, where the double doors yawn, green gowns close in and then ... poof! The next several hours may be erased from your life.

Except for what strength your autonomic *elan vital* can muster you are helpless while marvelous feats of innard engineering are performed. Fortunately, the arts of medicine and the standards of care make the odds very high that you will awaken sore but sounder.

But what if you aren't sounder? What if you are somehow hurt in the hospital? Will you be able to tell? Suppose your operation is successful, but your original symptoms of illness don't improve. You may believe they're worse. Considering your pain and the expense, that's disappointing. As you ponder your diminishing powers, you may wonder if the results could have been different. Were you wronged? If so, can you do anything about it?

An Atlanta woman is pondering these questions now. She says she entered a local hospital expecting routine diagnostic tests. But one turned out to be an involved procedure in which a leg artery was opened and a long, flexible catheter inserted. Then dye was injected for contrast X-rays.

The physician who performed the procedure had done only one other like it. This time something went wrong during the test. Perhaps the doctor caused it. The doctor says the dye manufacturer is at fault. Perhaps it was just chance. Whatever the cause, the woman is paralyzed from mid-trunk down.

Need for the involved contrast study was suggested by an earlier, simpler test. It was repeated before the involved study. This time it proved negative. Still the doctor went ahead with the involved procedure.

The patient is pondering her plight with an attorney.

Nationwide, increasing numbers of dissatisfied patients are filing malpractice suits.

Atlanta lawyers say they are handling about twice as many malpractice suits as last year. Malpractice is a big money game that's adding fuel to already heated national debates about human life and rights, law, insurance, medicine and government. It's not yet clear whether the public is losing or gaining in the controversy. Depending on whom you talk to, the boom in malpractice suits has been caused by greedy lawyers, demanding patients, incompetent doctors, medical specialization, health insurance, or simply heightened public awareness.

Doctors and their insurors are being hurt financially. An official of St. Paul's Insurance Co., which insures 92 per cent of Georgia's 4,600 physicians, stated recently on nationwide TV that his firm lost $23 million last year due to malpractice suits. Teledyne, Inc., reported a 1974 fourth quarter loss of nearly $17 million due mainly to heavy losses sustained by its malpractice insurance subsidiary, Argonaut Insurance.

Doctors are paying escalating insurance premiums; and while patients ultimately foot the tab, some doctors have closed their practices because of this phenomenal expense. Other physicians have transferred their property and stopped carrying insurance.

With malpractice suits forcing medical costs still higher, new legal remedies are being sought for the injured patient

In 1955 St. Paul's had only one malpractice claim in Georgia; in 1969, 132; in 1973, 238. St. Paul's rates for doctors in Georgia have risen 536 per cent since 1969, but the rates are still among the lowest in the nation. Class V Georgia physicians – anesthesiologists, obstetricians, gynecologists, neurosurgeons, orthopedic and plastic surgeons (those practicing the highest malpractice-risk specialties) – each paid about $2,000 in 1974 for malpractice insurance. But physicians in California paid more than seven times that figure.

In Georgia, however, 1975 coverage compatible with last year's could jump 70 per cent to $3,400. And Grady Hospital is paying 500 per cent more this year than last for premiums. (Their former carrier had demanded a 700 per cent rise).

Judgments have ballooned, too. In California last year the Gonzolas family recovered $2.7 million after a doctor admitted unnecessary and negligent surgery; the Niles family in San Diego obtained $4 million for a missed diagnosis that led to the permanent paralysis of their 11-year-old son.

Atlanta awards are smaller. One recent malpractice case was settled out of court for $300,000, but several cases involving larger sums are pending.

Insurance problems are compounded by malpractice "rules of discovery" which last October enabled a man to be awarded money for an injury sustained in 1950 but undiscovered until 1971. To combat the "rule of discovery" time bomb, insurors have rewritten yearly policies to exclude responsibility for future suits – the "claims made" method – and taken away doctors' traditional right to consent before settlement.

How have Georgia physicians avoided what one local attorney called "the full measure of damages"? Atlanta lawyers surveyed agree unanimously that a malpractice case is difficult and that Georgia has been an extra tough state for a plaintiff.

"Jury environment is very important," remarks an experienced malpractice lawyer. "We still won't take a case in rural Georgia, no matter how meritorious it is, because juries there simply won't find against doctors." (Perhaps because it would result in the loss of a physician.)

Local lawyers also say that until recently they've been at an enormous disadvantage prosecuting malpractice cases because "we saw only a rare case. The defense counsel did it for a living."

Most claims are awarded for one of three reasons: failure to diagnose properly; negligence in administration of drugs or other substances; and negligence in surgery.

When a 30-year-old Atlanta wife and mother of two began to suffer delusions and uncharacteristic outbursts of temper, a psychiatrist diagnosed her as mildly schizophrenic. She was treated with a combination of drugs which, among other things, can produce a rash and "shakes" and destroy blood corpuscles. An additional drug was prescribed to control these side effects.

Despite her repeated complaints of rash, loss of appetite, blurred vision and other signs of deterioration, the psychiatrist continued medication. His records indicate she was improving, but that at the same time he doubled her dosages. Shortly thereafter she had minor surgery performed by another doctor in his office.

She died that same night: She had few infection-fighting blood cells left. The psychiatrist settled the husband's claim – out of court – for $75,000.

In Georgia suits great weight is given to whether a defendant physician provided "that degree of care and skill that is exercised by physicians in general." Unless there's a very clear case of *res ipso loquitur*–"the thing speaks for itself" – so that even a layman can judge, most cases hinge on testimony from other doctors. But plantiffs' attorneys say unanimously that testimony by other doctors is hard to obtain.

"Frequently we have to bring in someone from out of state. Atlanta doctors won't stand up and be counted," one lawyer explains. "Physicians examine our cases privately and advise us pro and con; then they say, 'Don't let anyone know I saw this file.' "

But Hunter S. Allen Jr., who defends cases for St. Paul's Insurance, discounts these complaints. "If the case has merit, an experienced, ardent advocate can always find expert testimony, and usually on the local level. There's nothing to the so-called 'conspiracy of silence.' " A local doctor who prefers anonymity, however, says he would testify out of town "but not in Atlanta."

"The reasons behind the 'conspiracy of silence' are understandable," says Gary Smith, Emory University law professor. "Any profession will be protective of its peers. The feeling of a physician going to court is like that of a patient going into surgery. There is an adversarial spirit in the courtroom that most physicians simply have not been educated to appreciate."

A local surgeon adds: "The 'conspiracy of silence' is a myth. What I don't like is the 'conspiracy of attack.' Too many courts and lawyers practice 'deeper pocket jurisprudence.' They think we and the insurance companies have the money, so they're going to stick us."

The 'conspiracy of attack' may also be a myth: A Florida appellate court recently ordered a new trial in a case in which the plaintiff's attorney concluded his argument by referring to the defendant's insurance coverage and appealed to the jury's sympathy on grounds of economic disparity between defendant and plaintiff.

Lawyers generally take malpractice cases for a contingency fee that can earn them up to one-half of the final judgment. (Attorneys in the $4 million Niles award received 25 per cent of it.)

As evidence of greed, doctors often cite this contingency fee (which in Atlanta averages one-third of the award). But a 1973 Health, Education and Welfare (HEW) survey shows that plaintiffs' attorneys spend an average of 400 hours on each court case lost; and plaintiff and defendant lawyers agree that in Georgia "physicians win three out of four cases." Plaintiffs' lawyers on a contingency fee basis get no compensation if they lose a case.

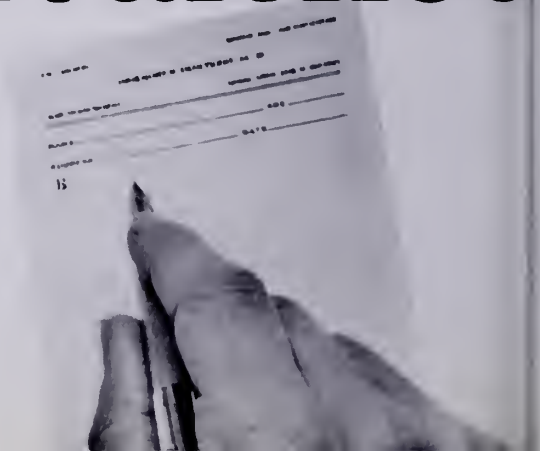
Behind the fee controversy is a curiosity: Defense attorneys usually are on fixed retainers with insurance companies; yet HEW's survey reveals that their compensation averages about the same as that of plaintiffs' lawyers.

Charles E. McCranie, an experienced malpractice attorney, computes that in any given 20 clients claiming malpractice, "five are clearly mistaken. Perhaps the doctor and patient miscommunicated; or perhaps the patient had unrealistic expectations. Another five might have suffered

Continued on Page 676



Bioequivalence



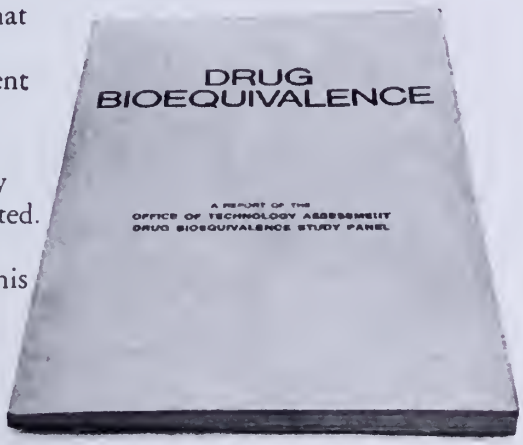
the weight of scientific opinion:

If the pharmacist substituted a chemically equivalent drug for the one you have specified for your patient—could you be certain of that product's safety and effectiveness simply because the chemical content was the same?

Definitely not, unless bioequivalence tests and other quality assurance checks had been conducted. The pharmaceutical industry and many scientists have maintained this position for years, but others have questioned it. Now the Office of Technology Assessment of the Congress of the United States has reported on the issue in its Drug Bioequivalence Study.*

Here are a few definitive statements in the O.T.A. report:

"...the problem of bioinequivalency in chemically equivalent products is a real one. Since the studies in which lack of bioequivalence was demonstrated involved marketed products that met current compendial standards, these documented instances constitute unequivocal evidence that neither the present standards for testing the finished product nor the specifications for materials, manufacturing process, and controls are adequate to ensure that ostensibly equivalent drug products are, in fact, equivalent in bioavailability.



"While these therapeutic failures resulting from problems of bioavailability were recognized and well documented, it is entirely possible that other therapeutic failures and/or instances of toxicity that had a similar basis have escaped attention."

The Pharmaceutical Manufacturers Association supports federal legislative amendments that would require manufacturers of duplicate prescription pharmaceutical products, subject to new drug procedures, to document:

(a) chemical equivalence; and

(b) biological equivalence, where bioavailability test methods have been validated as a reliable means of assuring clinical equivalence; or

(c) where such validation is not possible, therapeutic equivalence.

In addition, the PMA supports federal legislation that would require certification of all manufacturers of prescription products before they could start in business, annual inspections and certification thereafter, and strict adherence to FDA regulations on good manufacturing practices.

The overall quality of the United States drug supply is excellent. But only a total quality assurance program, envisaged in these and other policy positions adopted by the PMA Board of Directors in 1974, can bring about acceptable levels of performance by all prescription drug manufacturers and thereby assure the integrity of your prescription...

P·M·A

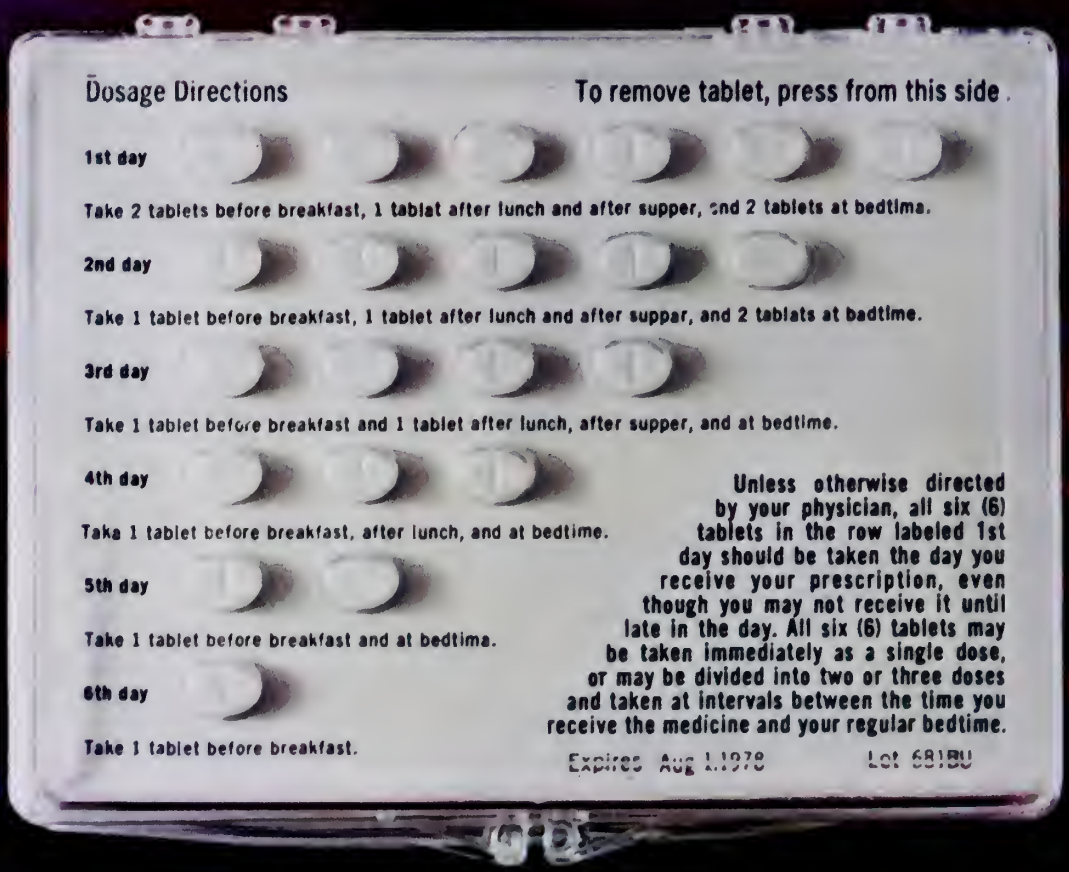
Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D.C. 20005

*Copies of the complete report on Drug Bioequivalence may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

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Medrol® 4 mg Dosepak™...
(methylprednisolone, Upjohn) short-term, tapered, corticosteroid therapy



The explicit printed dosage instructions that accompany each Dosepak make it easy for the patient to understand and follow the dosage regimen.

Poison ivy and other severe allergic states intractable to adequate trials of conventional treatment will often respond to a short, intensive, adjunctive course of Medrol. Medrol Dosepak is designed to provide a tapered, six-day course of methylprednisolone tablets.

On occasion, a six-day course of Medrol therapy may not be sufficient and therapy may need to be extended. If there is continued contact with the sensitizing agent, corticosteroids will not completely suppress the inflammatory response. A further caution: If lesions become infected during Medrol therapy, it should be remembered that steroids may decrease resistance to infection and hinder the body's ability to localize an infection.

MEDROL COMPRESSED TABLETS—2, 4 & 16 MG
(METHYLPREDNISOLONE TABLETS, N.F., UPJOHN)

DESCRIPTION AND ACTIONS: Medrol (methylprednisolone) is a synthetic glucocorticoid with potent anti-inflammatory effects. It is readily absorbed from the GI tract. Glucocorticoids cause profound and varied metabolic effects and modify the body's immune responses to diverse stimuli.

INDICATIONS: 1. **Endocrine Disorders:** Primary or secondary adrenocortical insufficiency (hydrocortisone or cortisone is the first choice; synthetic analogs may be used in conjunction with mineralocorticoids where applicable; in infancy, mineralocorticoid supplementation is of particular importance). Congenital adrenal hyperplasia, nonsuppurative thyroiditis, hypercalcemia associated with cancer. 2. **Rheumatic Disorders:** As adjunctive therapy for short-term administration (to tide the patient over an acute episode or exacerbation) in: psoriatic arthritis, rheumatoid arthritis (selected cases may require low-dose maintenance therapy); ankylosing spondylitis; acute and subacute bursitis; acute nonspecific tenosynovitis; acute gouty arthritis. 3. **Collagen Diseases:** During an exacerbation or as maintenance therapy in selected cases of—Systemic lupus erythematosus; acute rheumatic carditis. 4. **Dermatologic Diseases:** Pemphigus; bullous dermatitis herpetiformis; severe erythema multiforme (Stevens-Johnson syndrome); exfoliative dermatitis; mycosis fungoides; severe psoriasis. 5. **Allergic States:** Control of severe or incapacitating allergic conditions intractable to adequate trials of conventional treatment: Seasonal or perennial allergic rhinitis; bronchial asthma; contact dermatitis; atopic dermatitis; serum sickness. 6. **Ophthalmic Diseases:** Severe acute and chronic allergic and inflammatory processes involving the eye and its adnexa such as—allergic corneal marginal ulcers; herpes zoster ophthalmicus; anterior segment inflammation; diffuse posterior uveitis and choroiditis; sympathetic ophthalmia; allergic conjunctivitis; keratitis; chorioretinitis; optic neuritis; iritis and iridocyclitis. 7. **Respiratory Diseases:** Symptomatic sarcoidosis; Loeffler's syndrome not manageable by other means; berylliosis; fulminating or disseminated pulmonary tuberculosis when concurrently accompanied by appropriate antituberculous chemotherapy. 8. **Hematologic Disorders:** Idiopathic and secondary thrombocytopenia in adults; acquired (autoimmune) hemolytic anemia; erythroblastopenia (RBC anemia); congenital (erythroid) hyperplastic anemia. 9. **Neoplastic Diseases:** For palliative management of: leukemias and lymphomas in adults; acute leukemia of childhood. 10. **Edematous States:** To induce a diuresis or remission of proteinuria in the nephrotic syndrome, without uremia, of the idiopathic type or that due to lupus erythematosus. 11. **Miscellaneous:** Tuberculous meningitis with subarachnoid block or impending block when concurrently accompanied by appropriate antituberculous chemotherapy. Systemic dermatomyositis (polymyositis).

CONTRAINDICATIONS: Systemic fungal infections.

WARNINGS: In patients on corticosteroid therapy subjected to unusual stress, increased dosage of rapidly acting corticosteroids before, during, and after the stressful situation is indicated.

Corticosteroids may mask some signs of infection and new infections may appear during their use. There may also be decreased resistance and inability to localize infection. Prolonged use may enhance the establishment of secondary ocular infections due to fungi or viruses.

Since adequate human reproductive studies have not been done, the use in pregnancy, nursing mothers or women of childbearing potential requires that the possible benefits be weighed against the potential hazards to the mother and the embryo or fetus. Infants should be observed for signs of hypoadrenalism.

Average and large doses of hydrocortisone or cortisone can cause elevation of blood pressure, salt and water retention, and increased excretion of potassium. These effects are less likely to occur with the synthetic derivatives except when used in large doses. Dietary salt restriction and potassium supplementation may be necessary. All corticosteroids increase calcium excretion.

While on corticosteroid therapy, patients should not be vaccinated against smallpox. Other immunization procedures should not be undertaken in patients who are on corticosteroids, especially on high dose, because of possible hazards of neurological complications and a lack of antibody response.

The use of corticosteroids in active tuberculosis should be restricted to those cases of fulminating or disseminated tuberculosis in which the corticosteroid is used for the management of the disease in conjunction with an appropriate antituberculous regimen.

If corticosteroids are indicated in patients with latent tuberculosis or tuberculin reactivity, close observation is necessary as reactivation of the disease may occur. During prolonged corticosteroid therapy, these patients should receive chemoprophylaxis.

PRECAUTIONS: Hormone therapy is an adjunct to, and not a replacement for, conventional therapy.

Dosage should be individualized according to the severity of the disease and the response of the patient. As soon as a satisfactory clinical response is obtained, the daily dose should be reduced, either to termination of treatment or to the minimal effective maintenance dose level. The lowest possible dose should be used and when reduction in dosage is possible, the reduction should be gradual if the drug has been administered for more than a few days. If a period of spontaneous remission occurs in a chronic condition, treatment should be discontinued.

Drug-induced secondary adrenocortical insufficiency may be minimized by gradual reduction of dosage. This type of relative insufficiency may persist for months after discontinuation of therapy; therefore, in any situation of stress occurring during that period, hormone therapy should be reinstituted. Since mineralocorticoid secretion may be impaired, salt and/or a mineralocorticoid should be administered concurrently.

There is an enhanced effect of corticosteroids on patients with hypothyroidism; and in those with cirrhosis.

Corticosteroids should be used cautiously in patients with ocular herpes simplex because of possible corneal perforation.

Psychic derangements may appear or existing emotional instability or psychotic tendencies may be aggravated by corticosteroids.

Aspirin should be used cautiously in conjunction with corticosteroids in hypoprothrombinemia.

Steroids should be used with caution in nonspecific ulcerative colitis, if there is a probability of impending perforation, abscess or other pyogenic infection, diverticulitis; fresh intestinal anastomoses; active or latent peptic ulcer; renal insufficiency; hypertension, osteoporosis, and myasthenia gravis.

Growth and development of infants and children on prolonged corticosteroid therapy should be carefully observed.

Blood pressure, body weight, routine laboratory studies, including 2-hour postprandial blood glucose and serum potassium, and a chest X-ray should be obtained at regular intervals during prolonged therapy. Upper GI X-rays are desirable in patients with known or suspected peptic ulcer disease.

ADVERSE REACTIONS: Fluid and Electrolyte Disturbances. Sodium retention; fluid retention; congestive heart failure in susceptible patients; potassium loss; hypokalemic alkalosis; hypertension. **Musculoskeletal.** Muscle weakness; steroid myopathy; loss of muscle mass; osteoporosis; vertebral compression fractures; aseptic necrosis of femoral and humeral heads; pathologic fracture of long bones. **Gastrointestinal.** Peptic ulcer with possible perforation and hemorrhage; pancreatitis; abdominal distention; ulcerative esophagitis. **Dermatologic.** Impaired wound healing; thin fragile skin; petechiae and ecchymoses; facial erythema; increased sweating. May suppress reactions to skin tests. **Neurological.** Increased intracranial pressure with papilledema (pseudotumor cerebri) usually after treatment. Convulsions; vertigo; headache. **Endocrine.** Development of Cushingoid state; suppression of growth in children; secondary adrenocortical and pituitary unresponsiveness, particularly in times of stress, as in trauma, surgery or illness; menstrual irregularities; decreased carbohydrate tolerance; manifestations of latent diabetes mellitus; increased requirements for insulin or oral hypoglycemic agents in diabetics. **Ophthalmic.** Posterior subcapsular cataracts; increased intraocular pressure; glaucoma; exophthalmos. **Metabolic.** Negative nitrogen balance due to protein catabolism.

DOSAGE AND ADMINISTRATION: The initial dosage may vary from 4 to 48 mg per day. **Requirements are variable and must be individualized on the basis of the disease under treatment and the response of the patient.** The proper maintenance dosage should be determined by decreasing the initial dosage in small decrements at appropriate time intervals until the lowest dosage which will maintain an adequate clinical response is reached. If after long-term therapy the drug is to be stopped, it is recommended that it be withdrawn gradually rather than abruptly.

ALTERNATE-DAY THERAPY (ADT): ADT is a corticosteroid dosing regimen in which twice the usual daily dose of corticoid is administered every other morning. The purpose of this mode of therapy is to provide the patient requiring long-term pharmacologic dose treatment with the beneficial effects of corticoids while minimizing certain undesirable effects including pituitary-adrenal suppression, the Cushingoid state, corticoid withdrawal symptoms, and growth suppression in children.

Medrol (methylprednisolone) or other short-acting (producing adrenocortical suppression for 1¼ to 1½ days following a single dose) corticoids are recommended for ADT. Complete control of symptoms will not be possible in all patients. When considering this mode of therapy, keep in mind the basic principles and indications for corticosteroid therapy. The benefits of ADT should not encourage the indiscriminate use of steroids.

SUPPLIED: 2 mg—in bottles of 30 and 100 scored tablets; **4 mg**—in bottles of 30, 100 and 500 scored tablets and in 21 scored tablet Dosepak™; **16 mg**—in bottles of 50 scored tablets and in 14 scored tablet ADT Pak® (formerly Alternate Daypak®).

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(methylprednisolone)

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Continued from Page 671

Bad Medicine

malpractice but have no discernible injury." (As a public health physician says, "The human body can take more than some folks can dish out.")

McCranie adds, "I refuse nine of the remaining 10 because of problems of evidence or morbid situations in which the plaintiff might die before trial, leaving only a distant relative to benefit. There's a lot of time spent just in these preliminary investigations."

Hunter Allen agrees on the one in 20 figure but questions the reasons: "Ninety-five per cent are without merit. Period."

Are malpractice suits here to stay?

"We live in a time when people are acutely aware of their rights," says a surgeon. Attorney Dick Hubert contends that "plaintiff redress is a legitimate part of the free enterprise system. Since our standard of value is the dollar, depriving erring physicians of dollars ought to make them tighten up their ship. They should weed out more bad apples."

Georgia's medical licensing failure rate is the fifth lowest in the nation.

How much malpractice goes on?

"Very little," declares Dr. William V. Moore, Atlanta neurosurgeon and chairman of the Georgia Medical Association's Insurance Committee. "There simply aren't the opportunities for malpractice there once were. There's much more supervision. Thirty years ago, even 15 years ago, in decisions involving patients or procedure, a doctor might do pretty much what he wished. But now he faces review from a tissue committee, an audit committee, a utilization committee. And these checks were not instituted to combat malpractice; they were initiated to deliver better medicine."

Physicians say a doctor who made too many mistakes would find his hospital privileges revoked. But they agree that discipline in the profession "is difficult."

Dr. Malcolm Todd, president of the American Medical Association (AMA), has estimated doctor incompetence at 4 or 5 per cent. Dr. Moore says it's "not that much." The overwhelming majority practice excellent medicine. But a young radiologist who prefers anonymity says, "Ten per cent would be more like it."

Should doctors undergo periodic licensing exams, as airplane pilots do, for example? "If pilots spent eight to 11 years for their licensing exam," Dr. Moore observes, "I wonder how they'd feel about laying it all on the line every few years."

McCranie comments: "I doubt that the medical profession could police itself any more than the legal profession could." But Dr. Moore adds: "Every Specialty Board has gone on record as favoring periodic recertification, and that covers 80 per cent of physicians."

Physicians observe that in some instances they could have been sued, but their honesty and sincerity with the patient probably prevented action. But many patients want perfection. They expect to be restored to complete health when it's medically impossible. Too, patients today are surviving conditions that would have killed them a few decades ago. As medicine is attempting more new and difficult procedures, it opens new vistas for malpractice suits.

"The level of medicine practiced has never been as good as it is today. The half life of a medical education [the time by which half of it is outmoded] is down to five years or less. That's why specialists favor recertification," says a physician.

One doctor argues that health insurance plans with very low deductibles encourage the public to think they have a health guarantee. If patients were responsible for their first $10,000 of expense instead of their first $100, he says, they would be slower to enter hospitals and would see medical insurance as a guard against catastrophe, not a guarantee. He may be right – but who could afford it?

The HEW report concludes that TV is partially responsible for public attitudes: By showing medical miracles without always discussing risks, it builds an attitude of ease and perfection. "There are risks in even the simplest procedure," says a doctor. "That's why we give patients an 'informed consent' form to read, consider and sign if they're willing."

A radiologist says, "We definitely make more X-rays now that doctors are concerned with possible suit." No one knows how much testing is unnecessary, but McCranie says, "I have no problem with defensive medicine if the additional tests will save lives."

Specialization has created problems. There's less doctor-patient contact, less time to become acquainted. But that's an urbanization problem, a doctor shortage problem, a socio-medical problem. One attorney says specialization has created a money problem, too. Many specialists make relatively large amounts of money. "Nearly every person has his price, an income point beyond which he stops relating to another person as a person and thinks of him as a means to a goal."

What does the future hold?

"We'll probably end up with some kind of national health program like Great Britain has," Dr. Moore says.

"Peer review is the answer," says another. That would leave regulation in the hands of doctors, and even some physicians doubt that method's efficacy.

Peer review is very much a part of medicine through the activities of various hospital committees. The concept of Professional Standards Review Organizations also is debated. These organizations would be similar to existing peer review procedures, but many physicians believe they would set too many standards, have too many ties with government, and lead to a cumbersome bureaucracy.

Many are satisfied with the present system, but believe it will change in the near future. Most are no more than lukewarm on the idea of arbitration. Now it takes an average of five years to settle a court case; arbitrators would weigh cases and make recommendations to courts; or the panel's own decision might be binding. Some states have such bodies, and they seem to work.

In response to growing concern, local medical and bar associations have established the Atlanta Medical-Legal Committee to explore the whole question. The Committee's seminar on malpractice last February was the first such joint session of Atlanta doctors and lawyers. The thrust of their discussion was that changes must come – soon.

What kind of changes? Perhaps a system of national health insurance. Perhaps no-fault medical insurance with limitations on liability. Perhaps arbitration, especially since Georgia arbitration statutes are considered easy to adapt to malpractice suits.

Without substantial changes in the law, malpractice litigation seems certain to escalate. No one would deny an aggrieved patient the right to redress. But if judgments continue to swell, either the cost of medical care will soar, or its quality will decline as physicians retreat to the safety of timidity.

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South Central Bell



Building Your State PAC Leadership

W. J. LEWIS, M.D.
Immediate Past Chairman
AMPAC Board of Directors

It is a pleasure to be in Montgomery and truly a pleasure to share this day with the leadership of Alabama physicians and Auxiliary. When I realize that I am with the cream of the crop, I feel a little presumptuous talking to you about what makes a good medical political leader. However, my intentions are to share with you some of the new directions medical political leadership is going to have to take in order to remain in the leadership. But we can't speak of the future without reviewing the past.

Organized medical political action began over a decade ago, although physicians and their spouses have been active politically since the founding of this nation.

What prompted the formation of the PAC was a very logical query by our elected representatives. They said to the nation's physicians, "You come to us in your hour of legislative need, but where are you in our hour of political need?"

Medicine saw that the legislators had a point—hence the American Medical Political Action Committee (AMPAC), 50 State political action committees and one each in the District of Columbia and the Virgin Islands were formed.

Leaders were not hard to come by in those days due to a number of circumstances. First of all, government intervention in the practice of medicine was *the* topic of conversation among physicians. The Great Society was heading down the path of dubious greatness. The government was getting into the practice of medicine in a big way and you and I were viewing with alarm, the erosion of the private practice of medicine. Yes, in the old days of medical political action, physicians and their spouses flocked to the PAC because they knew what it was and what it could accomplish.

But in a few States, medical leadership took a dim view of the PAC. It wasn't that they couldn't see the value in it; it was because they weren't sure that it was appropriate for the men of medicine to become involved in the world of politics. Also the old Federal Corrupt Practices Act, under which AMPAC and the State PACs operated, did not say specifically that the PAC could, or could not exist. Confusion was medical political action's worst enemy in the early days.

Presented at The Political Education Workshop, jointly sponsored by ALAPAC and AMPAC, May 20, 1975, in Montgomery.

When the PAC began, State PACs and AMPAC raised membership dollars to be spent for direct candidate support and in almost all cases for general election efforts. Only when the primary was tantamount to election did the PAC get involved. The PAC depended upon the political parties to nominate the best candidate. From those two major candidates, the physicians in the local district decided on whom to place their candidate support efforts.

Just as medicine does not stand still, neither does politics. Things have changed and so we, too, must change.

Although the legislative issues have developed new and fancy jargon like PSRO and HMO, the old Medicare fight is still with us. How do we maintain the private practice of medicine? How do we keep the Federal government, and the State governments from interfering with the physician and his patient?

The PAC's answer has always been that the way to fight undesirable legislation is to elect the right candidate so that bad legislation is never introduced. But if it is, have a good man in the right place to stop that legislation.

AMPAC and the State PACs have not changed in the sense that our total resources are aimed at electing honest men to legislative bodies. AMPAC and the State PACs have never taken stands on legislative issues, and hopefully, never will. We leave that to the American Medical Association and the State medical associations. It is our job to elect good men to office, not try to change their minds once they get there.

Medical leadership is behind the PAC today more than ever before. The Federal Election Campaign Act of 1971, a campaign financing disclosure law, specifically stated that a corporation could set up a separate, segregated fund for the collection of political contributions. The few State medical associations which had been reluctant to acknowledge their political action committee, came out in the open and welcomed the State PAC into the medical family as a legitimate child.

In the field of education, AMPAC and the State PACs have not changed much, but there is a new emphasis. Where once AMPAC and the State PACs had the reputation of being solely financial support committees, renewed emphasis is being placed on volunteer efforts at the local level. This, too, came about as a result of the Federal Election Campaign Act of 1971, and its Amendments in 1974.

One of the biggest areas of change in medical political action operation on the State level is the area of candidate



Among physicians and their guests in attendance to hear Dr. Lewis (second from right) were: Rep. Nat Sonnier, House District 102, Mobile; Drs. John C. Sullivan, ALR, and Richard E. Brown, Oph., both of Montgomery.

support. While the State PACs used to concentrate all their resources on congressional campaigns, they now have enough membership dollars to participate in State legislative as well as congressional campaigns. Congressional campaigns are still the number one priority, and should be, but most State PACs have a war chest large enough to participate effectively in races for the State legislature. This activity was largely generated by the fact that so much health legislation is now coming out of the State legislature and because State PACs have been successful in their membership solicitation efforts.

So what does it take to be an effective State PAC leader in today's time?

To be a good medical political action leader in today's time, it pays to know the Federal law governing campaigns and to know the implications of that law.

Just as important, the good State PAC leader knows the State law governing the conduct of State legislative campaigns. If Alabama has not changed its State laws recently, it soon will. Common Cause, and its State affiliates, are working slowly and methodically to pattern its election laws after the Federal laws. In most cases, the State legislation is even more extensive and debilitating to the system of free and open elections.

Being a good State PAC leader means that you make sure new leadership is being recruited and trained continuously. In many States, especially in recent years, we have lost our State PAC leadership almost as soon as we recruited them. What happened? The State medical association scooped up our leaders and made them their own. This kind of success is hard to argue with, because when the State medical association leadership is well-acquainted with medical political action, and supports the PAC, then AMPAC and the State PACs experience rapid and stable growth.

At the same time, however, it is necessary to remember that you and I must constantly be thinking in terms of bringing in new PAC leaders. When we attend county medical society meetings, hospital board meetings, specialty society meetings—any gathering which holds our local and State colleagues, we must keep our eyes open for potential PAC activists. And once we recruit them, it is our responsibility to train them, to give them meaningful responsibilities and duties and to allow them to work their way up the ranks of PAC leadership and medical society leadership.

Fresh leadership brings new life into an organization. New ideas keep an organization growing and going. I do not mean youth, but I do mean vitality. I do not mean liberal ideas, but I do mean new twists on good, old conservative values. Fresh leadership means that your perspective as a total Board is more accurate in reflecting the physician population of your entire State.

In addition to staying informed on national and State political developments, a good PAC Board member gets involved in the political situation in his home district. He contacts his Congressman and State legislator concerning his views on all issues—medical and non-medical. He keeps his medical colleagues informed of the developments in legislation on the national and State level. He gets involved in the political party of his choice, at the highest level he can achieve.

Being a good medical political leader means becoming a sustaining member of your State PAC and AMPAC. The States of Missouri and Ohio recommend that all their State PAC Board members become sustaining members, in addition to the members of the State Medical Association's Board of Trustees. The Illinois Medical Political Action Committee makes it mandatory that its Board of Directors all be sustaining members, as does the Illinois Board of Trustees. Every AMPAC Board member is a sustaining member every year, as are all members of the AMA Board of Trustees, and its officers.

When the medical leadership supports the PAC, then the PAC becomes "the place to be." Medical society officers and Board members who wear their AMPAC 99+ pins show that the PAC is truly an integral part of the medical family.

More and more, State PAC Boards are increasing the representation of the Auxiliary. Auxiliary members make good PAC Board members. They are serious about their politics. They have concern for their country. And best of all, they have the time, the energy and the commitment to follow through in political campaigns.

It would seem to me that one of the best assets of a good PAC Board member would be to have objective and realistic perspective. He tries to see things as they really are, in the State and in the country as a whole. When you look at politics, without emotional thinking, but with clear and purposeful thinking, then you are bound to be more effective. A good PAC Board member saves philosophical dallying for his leisure time. When he is on the PAC's time, he takes action and thinks realistically.

One of the advantages of being an AMPAC Board member is that one does have an opportunity to visit many States, and to get a glimpse of what makes that State unique. The AMPAC Board of Directors is acutely aware of every State's need to function as best suits the State. That is why there is no binding affiliation between AMPAC and the State PACs. AMPAC and the State PACs work in cooperation with each other. We depend upon you to give us direction, just as you depend upon AMPAC to act in the best interest of medical political action.

New Physicians Licensed To Practice In Alabama



McCullough, David Legarde, M.D., Bowman Gray School of Medicine, 1964, Professor of Surgery/Urology, University of South Alabama.



Groark, James Patrick, M.D., University of Ireland School of Medicine (Galway), 1962, Reciprocity with Pennsylvania.



Nagendran, Tiruvannamalai, M.D., Madurai Medical College, India, 1966, Reciprocity with Virginia (FLEX).



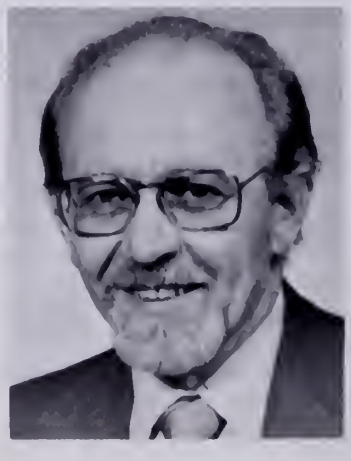
Hinzmann, Michael Scott, M.D., Marquette School of Medicine, 1973, Reciprocity with National Board of Medical Examiners.



Simpson, Wyatt Collier, Jr., M.D., University of Alabama School of Medicine, 1972, Reciprocity with National Board of Medical Examiners.



Holland, Monte Gene, M.D., Louisiana State University School of Medicine, 1953, Reciprocity with Louisiana.



VanGelder, William Clifford, M.D., New York Medical College, 1946, Reciprocity with National Board of Medical Examiners.

Soaring

the poetry of flight

Streaming along, clean and silent, spiraling upward and downward while the forest-topped ridges turn below, the sky above becomes endless and the earth below a super-real map. Jonathan Livingston Seagull? Icarus? No, but it could very likely be Dr. Omer L. Burnett!

The Tallassee physician is one of the many new soaring hobbyists across Alabama and he is one of its most enthusiastic supporters. He and his wife, Martha, are members of the Soaring Society of America and the Birmingham Soaring Society, which boasts approximately 30 members and which owns and flies two sailplanes that the society bases at a grass airstrip near Montevallo.

Depending upon the way you look at it, soaring is a pastime, a sport, an obsession, a self-induced high or an incomparable way to see the world. Dr. Burnett defines soaring this way: "It is the art and science of motorless flight utilizing naturally existing currents of air to remain aloft and to propel oneself through space without resort to use of an engine or other artificial means of propulsion."

A native of Goodwater, Dr. Burnett is a graduate of the Medical College of Alabama, served his internship at St. Vincent's Hospital and his residency at Baptist Medical Centers, Birmingham. A member of the Elmore County Medical Society and MASA, he came to Tallassee in January, 1975. He is the Radiologist for Community Hospital, Tallassee. He is also on the staff of the East Tallapoosa Hospital, Dadeville. Dr. Burnett, a powerplane pilot as well as a soaring enthusiast, has recently received a "C" badge from the Soaring Society of America, one of its highest achievements.

When asked to describe the appeal of soaring, he replied, "First and foremost, soaring is a form of nature study. Furthermore, soaring in itself is a beautiful experience in that it defies description; looking back on a flight after one's feet are on solid ground, it all seems somehow dreamlike or impossible. The ability to soar depends upon an understanding of subtle relationships between the sky, its currents and the earth below. Soaring has been defined by airline pilots as the purest form of flight. It affords an almost complete sense of freedom and serenity, but at the same time, requires that one be prepared and even eager to depend solely upon himself and his craft. Like medicine, soaring can be at the same time relentlessly demanding and intensely rewarding."



Dr. Burnett admires the "ultimate" in sailplanes during a recent airshow: a Standard Austria model (German-built), single-seater.



This Blanik Sailplane (Czechoslavakian-made), two-seater, is a favorite of the Birmingham Soaring Society.

Soaring is a hobby unfamiliar to a great portion of the general public. The following questions usually arise when the subject of soaring is brought up in a conversation: What is involved? What is a typical flight like? Is it expensive?

Dr. Burnett answered similar questions this way: "Sailplanes are solar piloted machines. That is, the sun provides the motivating power by warming the air and making it rise (the rising currents are called thermals). The plane is light, responsive and bird-like. It has long, graceful wings which are an adaptation for extreme slow speed flight in order to stay within the rising currents of air."

He continued by saying, "A typical flight involves being towed by an aircraft to an altitude of around 1,500 - 2,000 feet. Once the release has been made from the towplane, the object is to begin the search for thermals. Sinking air will force the plane downward. Time in the air varies, depending upon the ability to stay within the rising currents of air. Usually the speed within the thermals will be approximately 40-45 m.p.h., but speed between thermals may be much higher in order to spend a minimum of time in sinking air. Upon landing, the basic controls are the same as those for normal aircraft: ailerons, elevator and rudder, but with the addition of spoilers and dive brakes in the wing panels.

Dr. Burnett added that high performance, competition -type sailplanes can cost $20,000 or more, but many are less and a good used one may be purchased for $5,000 or less. For those who really get serious, planes can be purchased in kit form for approximately $2,000.

"If powerplane flying is the language of flight, then soaring is its poetry," Dr. Burnett reflected. "Statistically, soaring is an extremely safe sport. Perhaps the most dangerous part of the sport is the drive to the airport."

Anyone interested in obtaining further information about soaring may contact the Birmingham Soaring Society, Suite 501, 2101 Magnolia Avenue, Birmingham, Alabama, 35205 or Dr. Omer L. Burnett, 32 Still Waters Drive, Dadeville, Alabama 36853.

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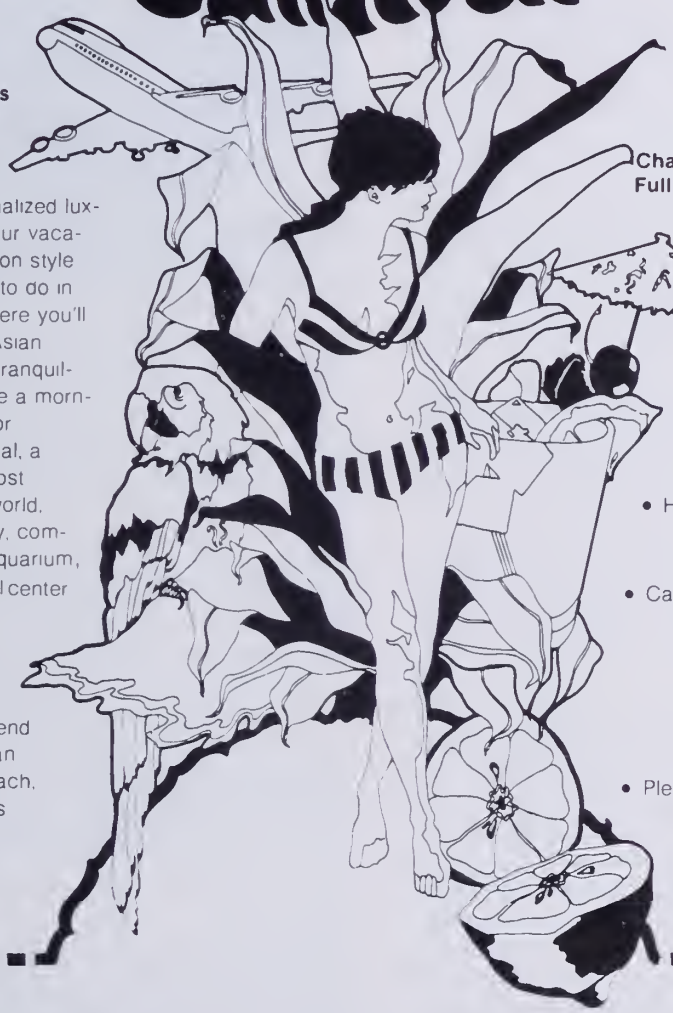
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Continuing Medical Education

BY LARRY DIXON

AMA Representatives Survey MASA's Education Program

The Master Plan for MASA's continuing medical education program as developed by the Medical Education Committee includes a provision whereby the Association should make application to the AMA to be accredited as a continuing medical education producer.

As an update, the Medical Association of the State of Alabama is currently authorized to conduct an intra-state continuing medical education accreditation program. Which means, the Association can accredit cme producers within the State, but cannot accredit its own cme conferences. The accreditation of its own conferences is what the Education Committee is seeking primarily in order to further the cme situation in Alabama.

In an attempt to affect the above, an AMA survey application for cme accreditation was completed and returned with the request that the surveyors be present at the 114th Annual Meeting of the Association to observe the continuing medical education conference commonly referred to as the President's Scientific Session.

The AMA survey team, selected by its Department of Continuing Medical Education, consisted of Dr. Nicholas Davies, Atlanta, Team Leader; Dr. Michael Pickering, Lakeland, Florida, Member; and Dr. Carl Aschoff, Cedar Rapids, Iowa, Observor.

The team began their survey the morning of Friday, April 18. They conducted individual interviews with the Association's President, Dr. J. Garber Galbraith, the Education Committee Chairman, the Executive Director of the Association, the Director of the Education Department and a group interview with the Committee members. These interviews were conducted with the purpose of determining the commitment to the production of quality continuing medical education by the elected leadership and education leadership of the Association. The interviews lasted the entire morning and culminated in the team's attendance at the Scientific Session that afternoon.

The AMA site survey team was surprised at MASA's desire to become an accredited cme producing agency for all continuing medical education programs, rather than just the Annual Meeting. The reason for their surprise can be attributed to the fact that very few State Associations have decided to provide cme to their membership and the team members were all from States where the Medical Association had made the decision *not* to produce continuing medical education on a regular basis. However, Dr. Margaret Klapper, Chairman of the Committee on Medical Education, was pleased to note that toward the end of the day the survey team members were beginning to become convinced that not only was it a service for MASA to provide continuing medical education to the membership, but it was also a feasible idea if it were enacted as the Education Committee planned.



SITE SURVEY INTERVIEW

AMA's survey team, involved in a discussion with members of MASA's Education Committee. (L to R) Drs. Nicholas Davies, AMA; Mike Pickering, AMA; Robert Dorrough, Thomas Woods, Carl Aschoff, AMA; Mr. Larry Dixon, Drs. James Pittman, Harry Herndon and L. C. Hamilton.

At present, the results of the survey are not known as the Team Report must be filed with the AMA following its completion and the survey team is not allowed to inform the applicant of its recommendations. The AMA will review the Team Report, discuss the recommendations and decide whether or not MASA should become an accredited cme producing agency. This process is, of course, time consuming and at present MASA is in a position of waiting for the results.

Should the results be positive and MASA become an accredited producer, the accreditation will be retroactive to the date of the survey, which means that the five hours of continuing medical education offered at the Scientific Session will be worth Category I credit. In the interim, any cme conference sponsored, co-sponsored or produced by this Association will also be worth Category 1 Credit.

The original view point of the survey team, regarding the question as to why MASA would want to get into the cme business is a common one. This is evidenced by the small number of cme accredited State Associations. If MASA is accredited, it will be one of the first ten Associations to become so. However, the Education Committee, as well as the others who were interviewed, were able to convince the surveyors that MASA's policy of providing its membership with accredited cme is a sound idea that is worth achieving.

DIRECTIONS: Each of the questions or incomplete statements below is followed by four or five suggested answers or completions. Select the one that is BEST in each case and circle.

1. The use of exchange transfusions for patients with hepatic coma due to fulminant hepatic necrosis
   (a) is clearly indicated for all such patients.
   (b) has been proven to be more effective than hemodialysis in prolonging life.
   (c) results in survival of 50 percent of the patients
   (d) requires further evaluation before its therapeutic value can be accepted
2. The severity of viral hepatitis during the initial two weeks of the illness is correlated best with
   (a) level of serum glutamic pyruvic transaminase (SGPT) activity
   (b) level of serum glutamic oxaloacetic transaminase (SGOT) activity
   (c) degree of prolongation of prothrombin time
   (d) degree of hepatomegaly
   (e) thymol turbidity level
3. The lamina propria of the small intestine normally contains many plasma cells. In most normal individuals, the majority of these plasma cells contain, and presumably, produce
   (a) immunoglobulin A (IgA)
   (b) immunoglobulin G (IgG)
   (c) immunoglobulin M (IgM)
   (d) immunoglobulin D (IgD)
   (e) albumin
4. The management of choice for patients with celiac-sprue disease (nontropical sprue) is
   (a) corticosteroids
   (b) a diet free of wheat
   (c) a diet free of corn and rice
   (d) a diet free of wheat, barley, and rye
   (e) a low-fat diet
5. In a patient with normal cardiac output, symptoms of chronic mesenteric vascular insufficiency would be most likely to occur if there is occlusion of
   (a) the celiac artery
   (b) the superior mesenteric artery
   (c) the inferior mesenteric artery
   (d) both the splenic and inferior mesenteric arteries
   (e) the superior mesenteric artery plus either the inferior mesenteric or celiac artery
6. The lower esophageal ring (Schatzki's ring)
   (a) will cause dysphagia when less than 12 mm in diameter
   (b) is more common in females than in males
   (c) is due to esophageal fibrosis
   (d) is associated with adnormal esophageal motility patterns
   (e) is none of the above
7. A 48-year-old woman had open-heart surgery for placement of a Starr-Edwards valve. During and after the procedure, the patient received 15 units of fresh whole blood. The postoperative course was uneventful. Fourteen days after the operation the patient was readmitted to the hospital with a temperature of 39.4 C(103.4 F). Physical examination disclosed hepatosplenomegaly. Laboratory studies showed a leukocyte count of 9000/cu mm with 58 per cent neutrophils, 40 per cent lymphocytes and 2 per cent monocytes. There were many atypical lymphocytes on the peripheral smear. Serum total bilirubin was 3.0 mg/100 ml, serum glutamic oxaloacetic transaminase (SGOT) was 10 times the upper limit of normal and the heterophil antibody test was negative. During the next two weeks she remained febrile with unchanged physical findings and little change in the laboratory valves.
   The most likely diagnosis is:
   (a) post-transfusion viral hepatitis
   (b) halothane - induced hepatitis
   (c) post - perfusion syndrome due to cytomegalovirus
   (d) infectious mononucleosis
   (e) subacute bacterial endocarditis
8. Which of the following observations is commonly found in achalasia?
   (a) Parasympathomimetic drugs, such as methacholine chloride (Mecholyl), fail to produce any effect on the esophagus because of absence of vagal innervation
   (b) The body of the esophagus functions as a denervated organ; peristalsis and its orderly progression down the esophagus after swallowing are absent.
   (c) the lower esophageal sphincter is hyperactive due to increased vagal tone
   (d) There is hydropic degeneration of the smooth muscle fibers of the distal esophageal sphincter
   (e) None of the above
9. A 17-year-old boy is seen six months after drainage of a perianal abscess and attempted repair of an anal fistula. The rectal incisions have not healed, and he has experienced a 25-lb weight loss since the operation. His hemoglobin is 8.5 gm/100 ml; hypochromia and microcytosis are seen on the peripheral blood smear. Except for the incisions, proctoscopy is normal, as is a roentgenogram of the colon.
   The procedure most likely to lead to a definite diagnosis is:
   (a) anaerobic cultures of the incised area
   (b) roentgenograms of the small intestine with barium
   (c) a Kveim test
   (d) a biopsy of the edge of the incision
   (e) a Frei test
10. A 45-year-old woman who has had active ulcerative colitis for five years develops jaundice and itching. She has noted periodic, short bursts of vague right upper quadrant discomfort, without local tenderness. Her temperature is normal. Laboratory studies show the serum glutamic oxaloacetic transaminase (SGOT) to be 1½ times the upper limit of normal and the serum alkaline phosphatase to be nearly three times the upper limit of normal. Bilirubin is found in her urine.



SIGHTS & SOUNDS

The following films are made available through the Eaton Laboratories. They may be obtained by either contacting your local Eaton Representative or by writing to Eaton Medical Film Library, Eaton Laboratories Division, Morton-Norwich Products, Inc., Norwich, New York 13815.

PELVIC EXENTERATION FOR CERVICAL CARCINOMA (775)—Hervy E. Averette, M.D. and John M. Harper, M.D.—This film illustrates the technique employed in total excision of the pelvic organs for cancer of the uterine cervix recurrent six years following radiation therapy. In addition to excision of pelvic viscera, pelvic lymphadenectomy, terminal sigmoid colostomy, and ileal conduit urinary diversion are shown. 16 mm., color and sound, 30 minutes (1968).

THE REPAIR OF VESICOVAGINAL FISTULA: TRANSPERITONEAL TRANSVESICAL APPROACH (705)—John W. Dorsey, M.D. and Carl G. Peterson, Jr., M.D.—This film is based on surgical procedure which produced cures, with a single operation in 32 cases of complicated vesicovaginal fistual. Emphasis is place on the value of the transperitoneal, transvesical exposure, which allows complete visualization of all important structures, mobilization of fistula tract under direct vision, simplified closure of vaginal defect with peritonealization, closure of bladder without tension and deperitonealization of anterior vaginal wall to pervent recurrent fistula formation. Each step in the procedure is carefully delineated, from preoperative cystoscopy to abdominal closure. 16 mm., color and sound, 15 minutes (1959).

RADICAL VULVECTOMY WITH POSTERIOR EXENTERATION FOR CARCINOMA OF THE VULVA (769)—Denis Cavanagh, M.D., F.A.C.O.G.—This film shows the technique of radical vulvectomy with bialateral pelvic inguinal lymphadenectomy. As the lesion invaded the rectum, a posterior exenteration was carried out on the patient. Pre-and post-operative lymphangiograms are shown and discussed. 16 mm., color and sound, 15 minutes (1967).

CONTINUING MEDICAL EDUCATION

Among the following diseases, which would most likely cause the jaundice?

(a) Carcinoma at the papilla of Vater
(b) Salicylazosulfapyridine (Azulfidine)-Sensitivity hepatitis
(c) Chronic active hepatitis
(d) Chronic pericholangitis
(e) Primary biliary cirrhosis

Correct Answers On Page 691

Infectious Disease And Allergy – Next Quiz



Pro-Banthine®
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Indications: Pro-Banthine is effective as adjunctive therapy in the treatment of peptic ulcer. Dosage must be adjusted to the individual.

Contraindications: Glaucoma, obstructive disease of the gastrointestinal tract, obstructive uropathy, intestinal atony, toxic megacolon, hiatal hernia associated with reflux esophagitis, or unstable cardiovascular adjustment in acute hemorrhage.

Warnings: Patients with severe cardiac disease should be given this medication with caution. Fever and possibly heat stroke may occur due to anhidrosis.

Overdosage may cause a curare-like action, with loss of voluntary muscle control. For such patients prompt and continuing artificial respiration should be applied until the drug effect has been exhausted. Diarrhea in an ileostomy patient may indicate obstruction, and this possibility should be considered before administering Pro-Banthine.

Precautions: Since varying degrees of urinary hesitancy may be evidenced by elderly males with prostatic hypertrophy, such patients should be advised to micturate at the time of taking the medication.

Overdosage should be avoided in patients severely ill with ulcerative colitis.

Adverse Reactions: Varying degrees of drying of salivary secretions may occur as well as mydriasis and blurred vision. In addition the following adverse reactions have been reported: nervousness, drowsiness, dizziness, insomnia, headache, loss of the sense of taste, nausea, vomiting, constipation, impotence and allergic dermatitis.

Dosage and Administration: The recommended daily dosage for adult oral therapy is one 15-mg. tablet with meals and two at bedtime. Subsequent adjustment to the patient's requirements and tolerance must be made.

How Supplied: Pro-Banthine is supplied as tablets of 15 and 7.5 mg., as prolonged-acting tablets of 30 mg. and, for parenteral use, as serum-type vials of 30 mg.

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one of the many things you need in an anticholinergic.



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"Antiacid" action—Pro-Banthine® (propantheline bromide) reduces gastric secretory volume and resting total and free acid.

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Vigorous anticholinergic action—Pro-Banthine® Vials, 30 mg., are for intramuscular or intravenous use when prompt and vigorous anticholinergic action is required.

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(propantheline bromide)

a good option in peptic ulcer

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makes sense in edema.*



Neither inconvenient, unpalatable, expensive potassium supplements nor special K^+ rich diets are needed as a rule. Just 'Dyazide' once or twice daily for control of edema. Serum K^+ and BUN should be checked periodically (see Warnings section).

Before prescribing, see complete prescribing information in SK&F literature or *PDR*. The following is a brief summary.

WARNING
This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Indications: *Edema:* That associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. *Mild to moderate hypertension:* Usefulness of the triamterene component is limited to its potassium-sparing effect.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

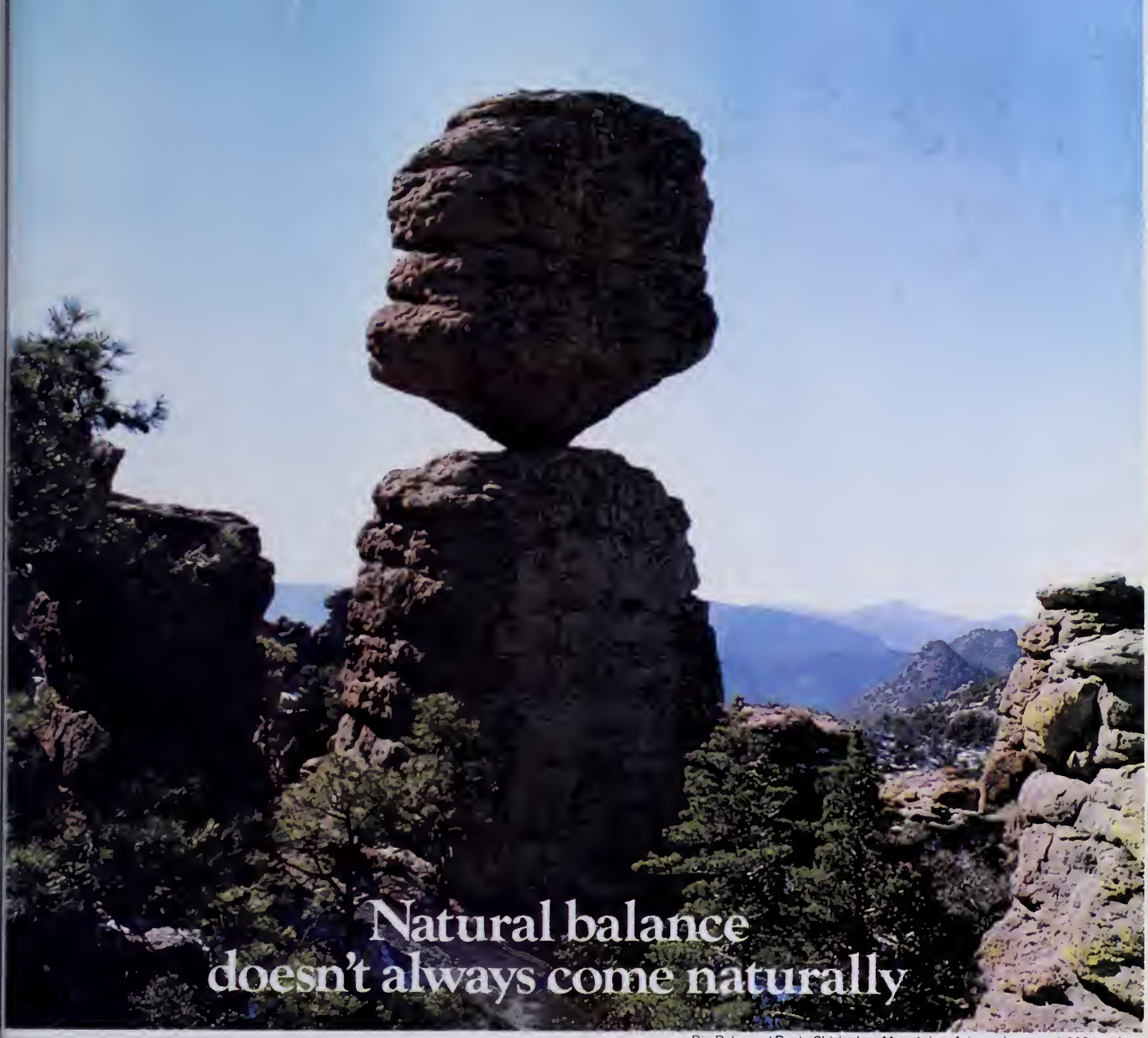
Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

SK&F Co., Carolina, P.R. 00630
Subsidiary of SmithKline Corporation

Dyazide' gets excess water and salt out and helps keep essential potassium in.



Big Balanced Rock, Chiricahua Mountains, Arizona (approx. 1,000 tons)

- Found useful in the management of vertigo* associated with diseases affecting the vestibular system.
- Can relieve nausea and vomiting often associated with vertigo.*
- Usual adult dosage for Antivert/25 for vertigo:* one tablet t.i.d.
- Also available as Antivert (meclizine HCl) 12.5 mg. scored tablets, for dosage convenience and flexibility.
- Antivert/25 (meclizine HCl) 25 mg. *Chewable* Tablets for nausea, vomiting and dizziness associated with motion sickness.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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CONTRAINDICATIONS: Hypersensitivity to any of the tetracyclines.
WARNINGS: Tetracycline usage during tooth development (last half of pregnancy to eight years) may cause permanent tooth discoloration (yellow-gray-brown), which is more common during long-term use but has occurred after repeated short-term courses. Enamel hypoplasia has also been reported. **Tetracyclines should not be used in this age group unless other drugs are not likely to be effective or are contraindicated.**
Usage in pregnancy. (See above **WARNINGS** about use during tooth development.)
Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.
Usage in newborns, infants, and children. (See above **WARNINGS** about use during tooth development.)
All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrease in fibula growth rate observed in prematures given oral tetracycline 25 mg/kg every 6 hours was reversible when drug was discontinued.
Tetracyclines are present in milk of lactating women taking tetracyclines.
To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The anti-anabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.
Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.
PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.
In venereal disease, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.
Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.
In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).
Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.
Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.
ADVERSE REACTIONS: Gastrointestinal (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in the anogenital region.
Skin: maculopapular and erythematous rashes, exfoliative dermatitis (uncommon). Photosensitivity is discussed above (See **WARNINGS**).
Renal toxicity: rise in BUN, apparently dose related (See **WARNINGS**).
Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.
Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.
Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.
Over prolonged periods, tetracyclines have been reported to produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.
USUAL DOSAGE: Adults—600 mg daily, divided into two or four equally spaced doses. More severe infections: an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. Gonorrhea: In uncomplicated gonorrhea, when penicillin is contraindicated, 'Rondomycin' (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule: 900 mg initially, followed by 300 mg q.i.d. for a total of 5.4 grams.
For treatment of syphilis, when penicillin is contraindicated, a total of 18 to 24 grams of 'Rondomycin' (methacycline HCl) in equally divided doses over a period of 10-15 days should be given. Close follow-up, including laboratory tests, is recommended.
Eaton Agent pneumonia: 900 mg daily for six days.
Children—3 to 6 mg/lb/day divided into two to four equally spaced doses.
Therapy should be continued for at least 24-48 hours after symptoms and fever have subsided.
Concomitant therapy: Antacids containing aluminum, calcium or magnesium impair absorption and are contraindicated. Food and some dairy products also interfere. Give drug one hour before or two hours after meals. Pediatric oral dosage forms should not be given with milk formulas and should be given at least one hour prior to feeding.
In patients with renal impairment (see **WARNINGS**), total dosage should be decreased by reducing recommended individual doses or by extending time intervals between doses.
In streptococcal infections, a therapeutic dose should be given for at least 10 days.
SUPPLIED: 'Rondomycin' (methacycline HCl), 150 mg and 300 mg capsules; syrup containing 75 mg/5 cc methacycline HCl.

Before prescribing, consult package circular or latest PDR information.

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Auxiliary



Martha Hughes
President

Convention In Review

Convention time is always an exciting time. How great it is to see folks with whom you shared pizzas and hamburgers back in residency days when the salary was low — and, how great it is to be able to even afford hamburgers in these days of inflation!

One of the exciting highlights of the convention took place on April 17 at the Civic Auditorium luncheon. Mrs. Howard Johnson, Sheffield, our State AMA-ERF chairman, presented checks to Dean Donovan, Mobile, for $5,341.87, and to Dean Pittman, Birmingham, for $28,926.22. These monies have been contributed by individuals and they designate the school of their choice. We are thankful for this total and urge all of you to continue with your support.

We were delighted to have two representatives from the WA-SAMA groups of Mobile and Birmingham. Most of these young ladies are employed full time, yet find time to engage in numerous activities within this group. These are our hope for the future. Let us give them all the help we possibly can, as well as our friendship. While you are extending the WA-SAMA girls your support, you may be doing yourself a favor, especially if your town is in need of more doctors.

Several weeks ago, I attended a Physician Recruitment Conference in Montgomery. One speaker advised those who were looking for a doctor to become friends with the junior and senior medical students. If there is a shortage in your community, this is the group of people which needs recruiting. By becoming interested in these medical students and their wives, you and I, as well as our communities, will become the beneficiaries.

PRESIDENT—Mrs. William Hughes/PRESIDENT-ELECT—Mrs. George Scofield/VICE-PRESIDENT—Mrs. Lewis Young/NORTHWEST DISTRICT VICE-PRESIDENT—Mrs. Aubrey Terry/NORTHEAST DISTRICT VICE-PRESIDENT— Mrs. Eugene Bradley/SOUTHWEST DISTRICT VICE-PRESIDENT—Mrs. Charles Weaver/SOUTHEAST DISTRICT VICE-PRESIDENT—Mrs. Emil Wright, Jr./AMASA EDITOR—Mrs. William Smith.

GASTROENTEROLOGY (Correct Answers)

1.	D	6.	A
2.	C	7.	C
3.	A	8.	B
4.	D	9.	B
5.	E	10.	D

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St. Louis Encephalitis In Jefferson County —1974

What Does The Future Hold?

John R. Burk, M.D., Rodney Snow, M.D., Clyde Sellers,
Alex Hicks, Michael Maetz, D.V.M., M.P.H.,
Mrs. Ruby Atkins and Mrs. Helen S. Lindsey, M.S.*

St. Louis encephalitis has been the most common arboviral encephalitis in the United States since the initial isolation of the causal agent, a group B arbovirus, was first isolated in 1933, in association with encephalitis in Kansas City and St. Louis, Missouri.[1,2] Periodic urban outbreaks occurred in North America in the 1950's and 1960's in Florida, Texas, Illinois and Kentucky. Significant outbreaks of St. Louis encephalitis had not been recognized in the 1970's until the Memphis-Shelby County Health Department reported four cases in August, 1974. Further investigations have revealed at least 44 cases of encephalitis resulting from infection with St. Louis virus.[3]

In September, 1974, a cluster of cases of encephalitis were observed by the Jefferson County Health Department based on hospital reports. An immediate investigation was begun. The Bureau of Communicable Diseases, Alabama Department of Public Health and the Center for Disease Control were notified and joined the investigation.

METHODS

A telephone survey was made of hospital record librarians at 13 Jefferson County hospitals for 1974 cases of encephalitis based on discharge diagnoses. Sixteen such cases in Jefferson County residents were found. The clinical presentation and hospital course of those 16 cases were reviewed and summarized.

As far as possible, biweekly blood specimens were obtained over two months following onset in the 16 suspected cases of encephalitis in Jefferson County residents. Laboratory studies on blood samples obtained included complement fixation (CF), hemagglutination-inhibition (HI) and serum neutralization antibody test (SNT). The HI and SNT were performed only by the Bureau of Laboratories, Center for Disease Control. Complement fixation studies were done both at the Center for Disease Control and the Bureau of Laboratories, Alabama Department of Public Health.

Additionally, all cases (11) of encephalitis reported to the State Department of Public Health in persons residing *outside* of Jefferson County were included for investigation and follow-up serologic survey. Eight such cases of unknown etiology were reported in 1974 and will not be discussed further, as appropriate serologic results were negative for St. Louis encephalitis.

A case was considered *confirmed* if there was a fourfold rise or fall in CF, HI or SNT antibody titers; *presumptive* if any titer was greater than 1:32 and without a fourfold change; and *clinical* if not enough serologic evidence was available, but the patient had fever, headache, nausea or vomiting and/or other neurologic abnormalities compatible with encephalitis and no etiology could be established.

THE RESULTS

The incidence of reported cases of encephalitis in Jefferson County increased in the late summer and early fall, 1974 (Figure 1).

Laboratory results of cases of St. Louis encephalitis are presented in Table 1. Five presumptive cases were identified and five cases were confirmed. Additionally, three cases were felt clinically to be St. Louis encephalitis.

Table 2 presents the symptom of encephalitis cases. Median age was 70 years. Fever was the most frequent symptom. Three deaths precluded later serologic testing in two. Viral isolation was not attempted in any of these cases.

When confirmed, presumptive and clinical cases of encephalitis were plotted geographically, they fell within a

*Alabama Dept. of Public Health (Dr. Burk, Mrs. Atkins, Mrs. Lindsey), Jefferson County Health Department (Mr. Sellers, Mr. Hicks, Dr. Maetz) and Carraway Methodist Medical Center (Dr. Snow).

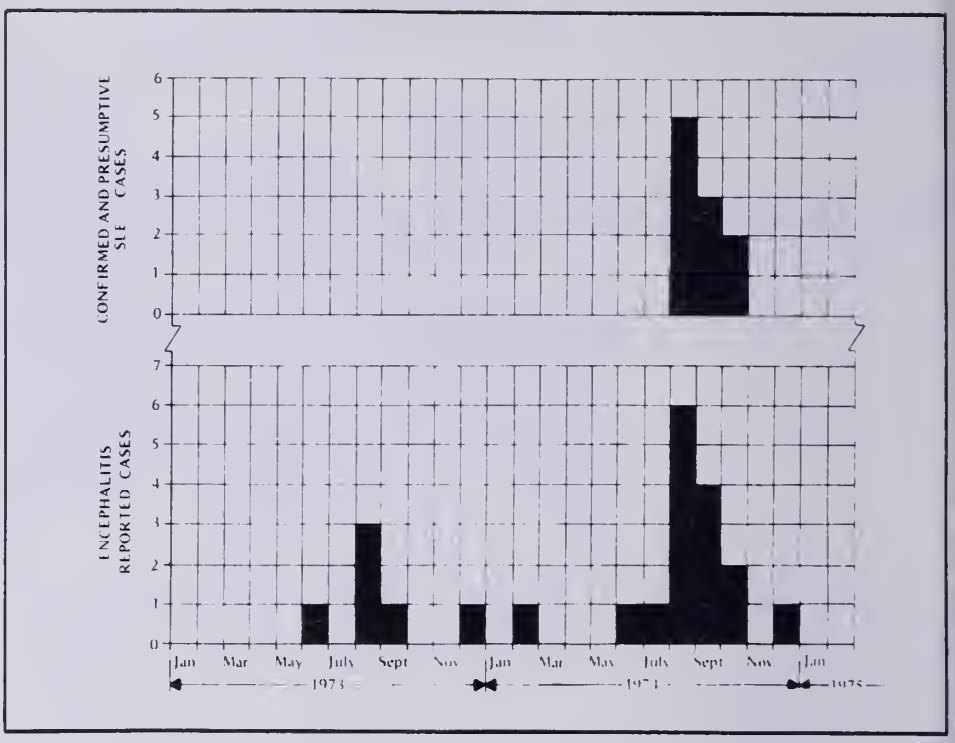


FIGURE 1.
ENCEPHALITIS
REPORTED CASES
JEFFERSON COUNTY

five mile radius in an area of north Jefferson County which is predominantly a lower socioeconomic neighborhood mixed with industry (Figure 2).

DISCUSSION

Though base-line data for St. Louis encephalitis in Jefferson County is lacking, the ten confirmed and presumptive cases in 1974 probably represent a small outbreak of St. Louis encephalitis and constitutes the first recognized outbreak of this disease in Alabama. Certainly the late summer and early fall occurrence, the predominance of clinical disease in older age groups and the urban setting in low socioeconomic circumstances are compatible with St. Louis encephalitis.[4]

Culex pipiens-quinquefasciatus group has been identified as the predominant mosquito vector in urban outbreaks and are known to occur in the Jefferson County area. No information is available regarding mosquito density in the spring, summer or fall of 1974. Further, there is no information regarding the potential reservoir in Alabama; however, from the experience of others, one would expect house sparrows, blue jays, pigeons and other local birds to be involved in the amplification and dissemination of St. Louis encephalitis.[4,5]

Investigation of previous urban outbreaks suggests a ratio of clinical illness to inapparent infection of between 1:50 and 1:200.[4] Thus, for the ten confirmed and presumptive cases identified, some 500 to 2000 additional asymptomatic human infections would have occurred in the same geographic and temporal location.

Perhaps of more concern is that historically, large St. Louis encephalitis epidemics have been preceded by small outbreaks. The 1933 St. Louis epidemic was preceded in 1932 by a small outbreak of what was probably St. Louis encephalitis in nearby Paris, Illinois. The Tampa, Florida outbreak in 1963 had been preceded by two years of increasing incidence of arboviral encephalitis. Additionally, there is a suggestion that the Houston outbreak in 1964 and Dallas outbreak in 1966 had been preceded by small clusters of cases the preceding year.[4] Thus, there is the potential for further cases of encephalitis in the summer and fall of 1975 in Jefferson County and Alabama.

PROPOSED CONTROL MEASURES

Control measures are being developed jointly by the Jefferson County Health Department, the Alabama Department of Public Health and the Center for Disease Control to meet the potential needs posed by St. Louis encephalitis in Jefferson County and Alabama in 1975.

I. Surveillance of Human Cases

Active surveillance for suspected cases of encephalitis is being intensified in the hospitals of Jefferson, Blount, Walker, Tuscaloosa, Shelby and St. Clair counties. The goal

TABLE 1

Confirmed, Presumptive, And Clinical Cases Of St. Louis Encephalitis

Jefferson County, 1974

CASES	ONSET	BLOOD OBTAINED	CF CDC	CF ALA.	H.I.	SNT	STATUS
1.	JUNE 16	JUNE 25	< 1:8		1:10		CLINICAL
2.	AUG. 1	AUG. 6	< 1:8	NEG	1.20	1:160	PRESUMPTIVE
		AUG. 16	QNS	NEG	QNS	QNS	
		AUG. 22	< 1:8	NEG	1:80	1:320	
		SEP. 26	1:8	NEG	1:20	1:40	
		OCT. 14	1:8	NEG	1:10	1:20	
		JAN. 28, 1975					
3.	AUG. 14	AUG. 19	< 1:8	NEG	1:10	1:20	PRESUMPTIVE
		AUG. 28	1:32	NEG	1:10	1:80	
		SEP. 2	QNS		QNS	QNS	
		SEP. 18	1:32	1:8	1:10	1:80	
		OCT. 11	1:16	1:32	1:20	1:40	
		OCT. 25	1:16	NEG	1:20	1:40	
4.	AUG. 15	AUG. 29	1:16	NEG	1:40	1:80	PRESUMPTIVE
		SEP. 16	1:16	NEG	1:20	1:80	
		SEP. 26	1:32	1:16	1:20	1:160	
		OCT. 21	1:8	1:8	1:80	1:80	
5.	AUG. 15	AUG. 22	1:8	< 1:8	1:10	1:320	PRESUMPTIVE
		SEP. 12	1:8	< 1:8	1:20	1:320	
6.	AUG. 21	AUG. 21	QNS	NEG	< 1:10	1:10	CONFIRMED
		SEP. 11	1:32	NEG	1:40	1:320	
		SEP. 23	1:64	1:32	1:80	1:320	
7.	AUG. 30	SEP. 10	1:8	NEG	1:40	1:160	CONFIRMED
		OCT. 30	QNS	NEG	1:40	1:320	
		JAN. 2, 1975	< 1:8	NEG	1:10	1:160	
		MAR. 6	QNS	NEG	QNS	1:40	
8.	SEP. 1	SEP. 3	< 1:8	NEG	≥ 1:20	1:160	PRESUMPTIVE
		SEP. 27	1:8	NEG	≥ 1:20	1:320	
		OCT. 31	1:8	NEG	≥ 1:20	1:320	
9.	SEP. 7	SEP. 10					CLINICAL
10.	SEP. 8	SEP. 10	1:8	NEG	1:40	1:640	CONFIRMED
		OCT. 2	1:16	NEG	1:80	1:640	
		APRIL 6, 1975	QNS	NEG	< 1:10	1:80	
11.	SEP. 30	OCT. 8	QNS	NEG	QNS	QNS	CONFIRMED
		OCT. 25	QNS	NEG	1:80	1:1280	
		NOV. 20	1:16	NEG	1:40	1:1280	
		JAN. 2, 1975	1:8	NEG	1:20	1:320	
		MAR. 10	QNS	NEG	< 1:10	1:160	
12.	OCT. 8	OCT. 11	1:8	NEG	1:20	1:160	CONFIRMED
		OCT. 25	1:16	NEG	1:80	1:320	
		JAN. 22, 1975	1:32	1:32	1:40	1:320	
13.	DEC. 15	DEC. 21	< 1:8	< 1:8	< 1:10	< 1:10	CLINICAL
		JAN. 17, 1975	< 1:8	< 1:8	< 1:10	< 1:10	

CF - COMPLEMENT FIXATION
HI - HEMAGGLUTINATION INHIBITION
ALA - BUREAU OF LABORATORY, ALABAMA DEPARTMENT PUBLIC HEALTH
CDC - BUREAU OF LABORATORY, CENTER OF DISEASE CONTROL, DHEW, ATLANTA, GA.
SNT - SERUM NEUTRALIZATION TEST
QNS - QUANTITY NOT SUFFICIENT

Table 2

Confirmed, Presumptive, And Clinical Cases of St. Louis Encephalitis

Jefferson County, 1974

CASE	AGE	RACE	SEX	FEVER	NAUSEA-VOMITING	HEADACHE	LETHARGY	ATAXIA	DEATH
1.	58	W	M	YES	YES	NO	YES	NO	YES
2.	68	W	M	NO	NO	YES	NO	YES	NO
3.	72	B	F	YES	NO	NO	YES	NO	NO
4.	78	B	F	YES	NO	NO	YES	NO	NO
5.	77	W	F	YES	NO	YES	NO	YES	YES
6.	8	B	M	YES	YES	YES	NO	NO	NO
7.	53	W	M	YES	NO	YES	NO	NO	NO
8.	70	B	F	YES	NO	NO	NO	YES	NO
9.	70	W	M	YES	YES	NO	YES	NO	YES
10.	74	W	F	YES	YES	NO	NO	NO	NO
11.	33	B	M	YES	NO	NO	NO	YES	NO
12.	47	B	F	YES	NO	NO	NO	YES	NO
13.	76	W	M	YES	YES	YES	YES	NO	NO
	MEDIAN	B-6	F-6						
13	70	W-7	M-7	12(92%)	5(39%)	5(39%)	5(39%)	5(39%)	3(23%)

* 3 DEATHS IN 13 CASES --- CASE-FATALITY RATE 23%

is to have one hospital professional report to the Bureau of Preventable Diseases weekly, and if necessary, daily on the presence or absence of newly admitted patients with suspected encephalitis.

Any reported cases will receive quick investigation of the clinical illness and serologic tests biweekly for two months for confirmation of the diagnosis. Laboratory testing for CF, HI and SNT will be carried out.

The responsibility for identification of hospital professionals to take part in active surveillance will be the Jefferson County Health Department for hospitals located in Jefferson County and the Bureau of Preventable Diseases for hospitals in the surrounding counties.

II. Mosquito Surveillance

The Jefferson County Health Department plans to make mosquito collections beginning in the spring of 1975. Selected *Culex* mosquitoes will be submitted in pools for viral isolation to be done at either the Bureau of Laboratories, Alabama Department of Public Health or Vector-Borne Disease Division, Bureau of Laboratories, CDC, in Fort Collins, Colorado.

If collections begin in mid-April and continue for 20 weeks through mid-September, some 20 mosquito pools per week would be necessary to duplicate the work of Memphis-Shelby County in 1974, in which 600 pools were collected with 12 positive isolations.

III. Serologic Study of Birds

Capturing birds and bleeding them for HI tests for St. Louis encephalitis has been suggested as an aid in identifying viral activity in the resident reservoir. The specifics of the technique will need to be developed jointly with the Fort Collins laboratory, CDC, and the Jefferson County Health Department.

IV. Mosquito Control-A, Jefferson County

The identification of St. Louis encephalitis viral activity in mosquito pools or increased serologic evidence of St. Louis encephalitis virus in the avian reservoir will initiate plans for a larvicidal mosquito control program by Jefferson County.

MOSQUITO CONTROL–B, ALABAMA

Confirmed cases of St. Louis encephalitis outside of Jefferson County will initiate further investigation and recommendation of mosquito control activities in the appropriate geographic area. The local resources of the communities involved and necessary mosquito control assistance from the Center for Disease Control will be enlisted.

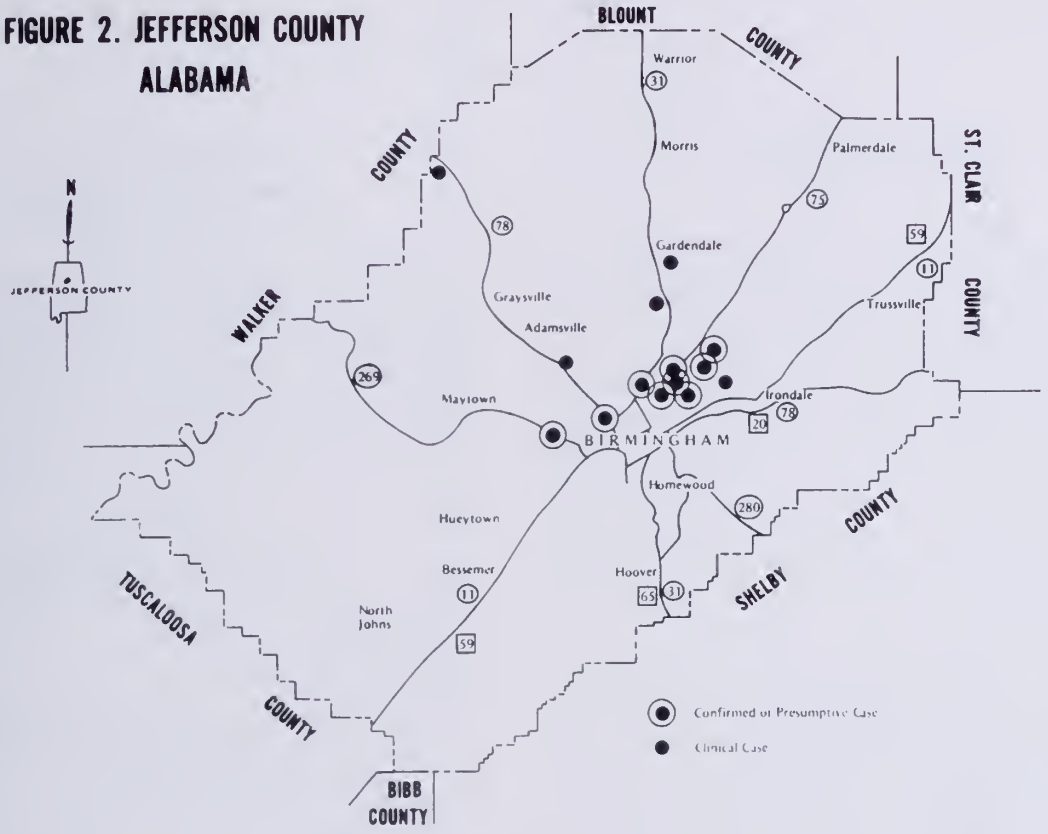
V. Educational Material to Public and to Professionals

Jefferson County Health Department and The Alabama Department of Public Health have agreed to develop educational material for the general public directed at mosquito control in the face of potential encephalitis. This is to include a pamphlet of pertinent information.

Continuing education for health professionals will be provided by the Jefferson County Health Department and the Bureau of Preventable Diseases, Alabama Department of Public Health. The Jefferson County Health Department, with the assistance of the University of Alabama Medical School and Carraway Methodist Hospital, will provide programs to further disseminate knowledge and awareness of St. Louis encephalitis to physicians in Jefferson County.

The Bureau of Preventable Diseases will meet with physicians of the previously mentioned surrounding counties during county medical society meetings and present the problem of 1974 and the potential of 1975. Additionally,

FIGURE 2. JEFFERSON COUNTY ALABAMA



letters will be sent to the physicians in these counties in the summer reminding them of this potential problem.

Thus, with the integrated resources of Jefferson County Health Department, The Alabama Department of Public Health and the Vector-Borne Disease Division (Fort Collins), CDC, the potential problem of St. Louis encephalitis should be recognized early, allowing mosquitocidal control measures to be taken. With containment of the *Culex* mosquito population, the magnitude of any outbreak should be blunted.

SUMMARY

St. Louis encephalitis (SLE) has been the most common arboviral encephalitis in the United States since 1933, when the causal agent, a group B arbovirus, was isolated. In 1974, a cluster of 16 encephalitis cases was observed by the Jefferson County (Birmingham) Health Department and was investigated in cooperation with the Center for Disease Control. Serologic studies on blood specimens revealed five cases of confirmed (fourfold rise or fall in antibody titer) and five cases of presumed (titer – 1:32) SLE. In addition, there were three cases considered clinically to be SLE. Three persons with encephalitis died. Most cases occurred in late summer or early fall, involved persons in the older age group and centered in an urban setting in low socioeconomic groups; these factors are compatible with an outbreak of SLE. Since small clusters of SLE may be followed by larger outbreaks in the subsequent year, a surveillance system and control measures have been established.

*Request for reprints to Dr. Burk, State Office Building, Rm. 250, Montgomery, Alabama 36104

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Gram Negative Septic Shock

Charles P. Craig, M.D.*

Part II

Preventable Sources Of Gram Negative Septic Shock

A review of the therapeutic factors increasing the risk of septicemia will reveal a variety of points at which the clinician may effectively diminish the risk of gram negative septicemia in patients. Close attention to maintenance of closed Foley catheter drainage and appropriate catheter care, sterile and meticulous care of endotracheal tubes and tracheostomies, regular attention to the sterility and careful maintenance of respiratory therapy equipment, sterile placement and meticulous care of intravenous lines (regular changing of filters and microdrop administration sets and attention to time intervals at which IV fluid bottles are changed), limitation of nasogastric intubation duration where possible and abbreviation of preoperative hospitalization will significantly reduce the risk of gram negative septicemia.

It should be recognized that most sources of septicemia are endogenous. That is, a patient becomes infected with bacteria arising from his own oral, gastrointestinal or genital flora. However, prolonged hospitalization is frequently associated with a change in bacterial flora. One study has documented a rising incidence of Pseudomonas colonization of the gastrointestinal tract from 6 per cent in healthy young patients when first admitted to the hospital to more than 75 per cent when they have been hospitalized within the previous six months (Shooter, 1966). The gastrointestinal tract seems to be the most common source of gram negative bacteria ultimately causing gram negative septicemia; thus, this change in flora becomes important to the clinician faced with the challenge of developing an effective therapy for gram negative sepsis. The source of Pseudomonas in the hospital environment may be various, but recent investigators have found large numbers of Pseudomonas in such ubiquitous hospital items as fresh fruit and vegetable salads on dinner trays and fresh flowers delivered to patients (Kominos, 1972; Watson, 1973). Exclusion of these potential sources of Pseudomonas from patients who are at increased risk to septicemia because of low white blood count, malignancy or cutaneous lesions such as burns or diffuse eruptions should obviously be practiced.

As documented above, use of broad spectrum and antiobiotics is associated with a high incidence of gram negative septicemia. Aggressive, vigorous educational programs in proper selection and use of antibiotics seems an acceptable approach to this problem.

*Dr. Craig is Associate Chief of Staff for Research and Education, Veterans Administration Hospital, Tampa, Florida. His presentation was made before the Houston County Medical Society in November, 1974. Part I appeared in the May issue of The Journal.

Treatment Plan For Patients With Gram Negative Septicemia And Shock

A definitive but fixed sequential approach to the treatment of gram negative septicemia and shock is extremely helpful and improves the prognosis in these conditions. The following description of treatment is adapted from a publication by MEDCOM (Sanford, ed., 1971), concerning gram negative sepsis:

TABLE 4

Treatment Plan in Septic Shock

1. Examine the patient
2. Provide an airway
3. Measure CVP, vital signs, hemoglobin, hematocrit, arterial blood pH, pO_2, pCO_2
   a. Administer fluids as indicated
   b. Steroids?
   c. Heparin?
   d. Use pressors as last resort
4. Measure hourly urine output
5. In obscure shock, suspect septicemia
6. Take cultures
7. Use antibiotics

1. The first step is to carefully but quickly examine the patient. This examination has several purposes. The first is to establish baseline data for following his subsequent course. Thus, it is necessary to determine the blood pressure, pulse rate, respiratory rate and body temperature. In addition, the exam should provide initial information about potential sources for the septicemia. Careful evaluation of infected wounds, the lungs, the upper airway, the genitourinary tract and the abdomen is imperative. Finally, this examination may determine the degree of shock that one is dealing with and the vigor and form that therapy should take.

2. The second is to provide an airway. Many patients with gram negative septicemia will require respiratory support in order to maintain oxygenation. The extent of acidosis associated with failure of the microcirculation frequently overstimulates the respiratory center to the point of fatigue following which oxygenation diminishes. In addition, congestive heart failure may occur in later stages

of shock and seriously impair oxygen exchange. For these reasons, provisions of an appropriate airway is absolutely essential. If one is in doubt, the best rule is to insert an airway.

3. Measure central venous pressure. A central venous pressure line either placed in an abicubital vein and passed centrally to the vena cava, or inserted directly into a subclavian vein, is essential for the management of gram negative septicemia and shock. This provides an opportunity for frequent measurements in the early stages (at least every 15 minutes) of central venous pressure (CVP) and appropriate adjustment of fluid administration to maintain normal CVP, as well as cardiac output. X-ray determination of the location of the CVP catheter tip should follow immediately after its placement. In addition, this will provide information about whether or not accidental pneumothorax may have complicated placement of the subclavian CVP line.

There are a number of other baseline data that should be acquired at this time. These include hemoglobin, hematocrit, arterial blood pH, PO_2 and PCO_2, NA^+, Cl^-, BUN and creatinine and frequent measures of blood pressure, respiration, pulse and temperature. As soon as the central venous blood pressure is determined, one may begin fluid administration. With the generalized dilitation of the microvasculature which occurs in the final stages of microvasculature failure, the central venous pressure falls and may reach 0. In this circumstance, cardiac output is seriously decreased, peripheral circulation becomes extremely sluggish and lactic acidosis intervenes.

The most effective immediate therapy for this is expansion of the vascular volume by the administration of fluids. The best fluid expander, of course, is whole blood; however, early in the course, before blood can be typed and cross-matched, one should use 5 per cent dextrose, normal saline or similar isotonic solution. It is well to avoid lactate in the solutions administered because lactic acidosis so frequently accompanies septic shock. Plasma expanders such as dextran and human serum albumin are useful alternatives to blood and can be used early in the course of treatment until whole blood is available. Whole blood is preferable to packed cells because one wants to expand plasma volume, as well as red cell volume.

Attention must be given to the problem of restoring the vascular integrity which has been altered by the effects of gram negative endotoxin. Otherwise, the fluid administered continues to escape into the extracellular fluid space and hypotension continues. A variety of events occur with stasis in the vascular tree. In the splanchnic bed, in particular, one finds absorption of gram negative bacteria and endotoxin from the gastrointestinal tract associated with splanchnic stasis. (Fine, 1974). This particular phenomenon has been demonstrated to be significant, the evidence being that administration of oral antibiotics against GI flora significantly decreases the lethality of endotoxin in experimental animals. Gram negative endotoxin also has the capability of "blockading" the reticuloendothelial system, which interferes with endotoxin detoxification. This creates a cyclic effect of more endotoxin absorption from the gastrointestinal tract, leading to more reticuloendothelial blockade, leading to more vascular pathology and statis and increasing the absorption of endotoxin from the GI tract.

The second splanchnic phenomenon is the release of a myocardial depressant factor (MDF) from the pancreas (Lefer, 1974). This factor has been shown to have a direct effect on myocardial contractility with resultant decrease in cardiac output. It is released from the pancreas of humans as well as experimental animals in the condition of splanchnic stasis and acidosis. Its effect is partially interfered with by pharmacologic levels of corticosteroids.

A third effect of stasis is disseminated intravascular coagulation (DIC). This can be effectively screened for by employing several laboratory studies. These should include the determination of fibrin degradation products, prothrombin time, partial thromboplastin time, platelet count and fibrinogen concentration. In addition, preparation of a stained blood smear will permit the clinician to look for burr cells and shistocytes as well as estimate platelet count. If no platelets are seen in a significant number of oil immersion fields, this is good evidence for thrombocytopenia. This early examination using the blood smear can alert the clinician to the occurrence of DIC before laboratory studies are available.

4. Measure hourly urine output. The urine output should be monitored on an hourly basis using a closed Foley catheter system or hourly straight catheterization. Catheterization should, of course. be done under sterile conditions using careful preparation of the urethral orifice, sterile draping and sterile gloves. Any violation of the principle of sterile catheterization exposes the patient to the possibility of creation of a nosocomial infection in the urinary tract and another potential source for septicemia. Measurement of the urine output is the most physiologic way of determining the effectiveness of blood volume expanders.

The urine output should correlate with central venous pressure. If, in the presence of a normal central venous pressure, urine output begins to fall, this is a good clue to impending acute tabular necrosis (ATN). Some authorities maintain that use of a rapid acting diuretic early in ATN has a flushing effect on the renal tubules which prevents protein precipitation, tubular obstruction and augmentation of the disease process. For that reason, administration of Furosimide, 40-80 mg/IV when the urine output begins to fall in the face of normal central venous pressure, may be useful.

5. In obscure shock, suspect bacteremia in any patient who has underlying disease which may increase the likelihood of gram negative septicemia. Thus, in patients with cirrhosis and ascites, disseminated malignancy, leukemia, immunosuppression, obvious foci of infections in lung, urinary tract or abdomen, or recent abdominal or genitourinary surgery, one should suspect bacteremia if shock occurs for no other obvious reason. A high index of suspicion is extremely useful.

6. Take cultures. In many patients in whom bacteremia occurs, antibiotics have already been instituted. For that reason, one needs to take steps to neutralize their effects in blood cultures. It should be recognized that even though organisms in the blood stream are sensitive to antibiotics being given, the antibiotics may not control their systemic spread if their source of origin is in an abscess or an obstructed viscus. For that reason, blood cultures should include penicillinase and Liquoid, as well as solute such as sucrose or sodium chloride, to make them slightly hyper-

tonic in order to facilitate growth of organisms in the presence of antibiotics. In addition, anaerobic blood cultures should be obtained since anaerobes, as illustrated in the first table, (see May issue of The *Journal,* Vol. 44, No. 11, p. 610) are commonly seen in certain circumstances, particularly patients who have undergone gastrointestinal tract surgery.

7. Use antibiotics. In this situation, it is necessary to have a careful measurement of urine output, and, if possible, a creatinine clearance in order to adjust the dosage of antibiotics to renal function. Creatinine clearance can be conveniently obtained in as little as two hours by collecting the urine excreted over a two hour period and a blood drawn simultaneously and measuring the creatinine in the urine and the blood. This permits one to adjust the antibiotic dosage to avoid, as far as possible, toxic complications of excessive antibiotic levels in the blood resulting from poor renal function. In addition, it is useful to recognize that certain antibiotics are less effective in individuals who have low neutrophil count. In particular, it has been observed that the aminoglycosides (streptomycin, kanamycin, gentamicin, neomycin) seem to be less effective in individuals having neutropenia than in those with normal leukocyte counts. For that reason, selection of antibiotics should be carefully done in light of the patient's underlying condition.

Controversies

There are several adjuncts to the treatment of gram negative septicemia and shock which are relatively controversial. These include the use of corticosteroids, the use of oral, nonabsorbable antibiotics and the use of heparin.

Steroids. There are several theoretical reasons for employing steroids in gram negative septic shock. The first is the capability of steroids to interfere with the action of MDF. The second is the effect of corticosteroids on membranes, which may impede the release of lysosomal enzymes and in that way partially block the sequence of events leading to DIC. The third is the effect of corticosteroids on vessel walls which partially restores their integrity and may therefore diminish vascular permeability and the loss of fluids into the extracellular fluid space. In gram negative septic shock, the usual recommended corticosteroids and their dosages are: a) dexamethazone, 100 m/gq8hrs/IV; b) hydrocortisone, 1-2 gm/q4hrs/IV; c) methylprednisolone 1 gm/q6hr/IV.

Steroids should be continued for 36-48 hours, but not beyond that because of the potential for inducing GI stress ulceration and gastrointestinal bleeding. In addition, corticosteroids may relieve vasospasm in early shock, counteract lactate accumulation by stimulating glycogen production from lactate, stimulate ATP production by inducing entrance of amino acids into the Krebs cycle, and inhibit kinin production by kallikrein (Hodes, 1969).

Oral, nonabsorbable antibiotics. The studies by Fine (Fine, 1974) with experimental animals demonstrate the role of the GI flora in potentiating the endotoxemia of gram negative septicemia. His studies also demonstrate a beneficial effect of the administration of oral aminoglycoside and erythromycin base to eliminate, so far as possible, the GI flora and minimize its contribution to endotoxemia. For these purposes, the administration of 1 gm of kanamycin and 1 gm of erythromycin base via nasogastric tube every 6 hours may be useful in a patient who has an intact gastrointestinal tract and does not have ileus.

Heparin. A great deal of experimental evidence has been amassed which suggests that heparin may block a number of steps in DIC deposits in large amounts in the renal glomeruli and probably plays a role in renal failure in septic shock. For that reason, agents which interfere with intravascular coagulation have been suggested as potentially effective agents in gram negative septicemia (Nichols, 1973).

If a patient shows manifestations of DIC, such as the presence of greater than 40 micrograms of fibrin degradation products, low fibrinogen, platelet count below 40,000, burr cells of shistocytes, or abnormalities of prothrombin or thromboplastin concentrations, heparin may be a useful adjunct to therapy. In this situation, one should follow the partial thromboplastin time as an index of effective therapy. In many patients with DIC, the partial thromboplastin time will be quite long. The administration of heparin in many of these patients causes a fall in partial thromboplastin time to ranges normally believed to be associated with effective anticoagulation; that is, one and one-half – two times normal, one-half hour before the next dose of heparin. Usual doses of heparin required to reverse DIC are in the range of 8-12,000 units IV every 4-6 hours for the usual adult.

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Simultaneous Missile Injury Of Right Subclavian Artery And Vein

A Case Report

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Although the incidence of isolated trauma to the subclavian artery and vein is infrequent[1,2], the vascular surgeon must be prepared to deal with this challenging and often lethal situation. Due to the narrow anatomical confines of the supraclavicular region, satisfactory proximal and distal control is often extremely difficult to obtain. The following case report illustrates one practical and simple method of approach in such injuries.

Case Report

An inebriated, 35-year-old male was brought into the emergency room of St. Margaret's Hospital approximately one hour after being shot at close range by a small caliber handgun. The circumstances of the encounter were unavailable, but the pathway of the bullet could be inferred by the wound of entry, just above the middle third of the right clavicle, and the appearance of the bullet in the posterior chest wall on the chest X-ray (Fig 1). The blood pressure was 60/40, pulse 120. The neck veins were not distended.



Fig. 1. Admission chest X-ray showing right hemothorax and position of bullet in posterior chest wall.

Breath sounds were absent in the right hemithorax. Cardiac sounds were normal. All peripheral pulses were present and symmetrical. No apparent neurologic deficit was present in the right arm or in either leg.

A portable chest X-ray (Fig 1) showed complete opacification of the right hemithorax. Rapid infusions of lactated Ringer's solution were started while the surgical suite and blood for transfusing were prepared. Because of the proximity of the bullet wound to the subclavian vessels, the decision was made to explore the supraclavicular area as well as the right thoracic cavity, despite the clinical absence of neurovascular injury to the right arm. The entire right arm was draped so that it could be maneuvered appropriately for both an anterolateral and a supraclavicular incision (Fig 2). The thoracic incision was made first. The right pleural cavity was evacuated of approximately 3,000 cc. of blood and clots. The bullet had traversed the right upper lobe causing minimal contusion and very little airleak. The third right posterior intercostal bundle was severed and bleeding profusely. This was controlled by proximal and distal suture ligation. The right apical pleura was contused, but no active bleeding, pulsating hematoma or bruit could be detected in this area.



Fig. 2. Right arm draped within operative field, in position for anterolateral thoracotomy incision.

Through the thoracotomy incision, a laparotomy pad was compressed into the apical area by the first assistant (Fig 3). The right arm was positioned at the patient's side and an oblique insision made across the supraclavicular space. Tapes were placed distally around the common carotid artery and the internal jugular vein. The innominate bifurcation was exposed and a tape placed around the origin of the subclavian artery. As the dissection continued distally, a 5 mm. rent was encountered in the posterior surface of the subclavian vein just at the insertion of the

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Fig. 3. Right arm at side, showing position of assistant's hand, for proximal control of intrathoracic subclavian artery and vein.

external jugular branch. One centimeter distal to the origin of the vertebral artery, a clot was dislodged from a jagged avulsion of the anterior wall of the subclavian artery (Fig 4). By using bimanual compression, the surgeon's hand from outside and the first assistant's hand from inside the chest, and by abducting the right arm, it was possible to secure control of all the proximal and distal subclavian arterial and venous branches without dividing the clavicle.

The subclavian vein was repaired by performing a high ligation of the external jugular vein, suturing the subclavian vein with continuous 6-0 monofilament, plasticized suture. The subclavian artery was patched with a segment of the ligated external jugular vein, using the same suture material (Fig 5).

The postoperative pulses in the right arm were full and equal to those in the left arm. Except for a 48 hour temperature elevation which responded to intermittent positive pressure therapy and intravenous antibiotics, the recovery was uneventful. At a two month postoperative evaluation, the blood pressure and Doppler examination of the arterial pulsations were identical in left and right arms.

Discussion

In 1818, Valentine Mott[3] performed the first recorded ligation of the innominate artery using an unprecedented incision which paralleled the superior border of the clavicle, then angled superiorly along the sternocleidomastoid muscle. Since then, many incisions have been described for approaching vascular structures in the supraclavicular area, suggesting that no single one is satisfactory for all cases. By 1929, Greenough[4] had collected 17 different surgical

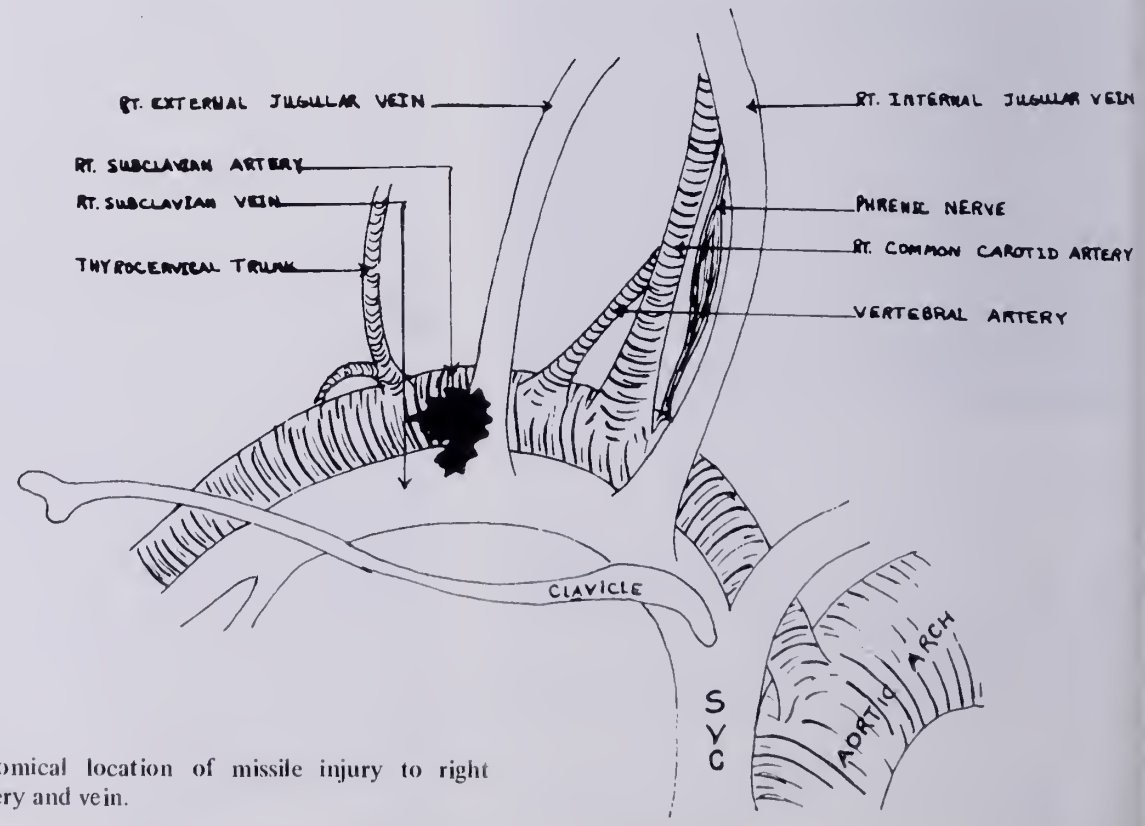


Fig. 4. Anatomical location of missile injury to right subclavian artery and vein.

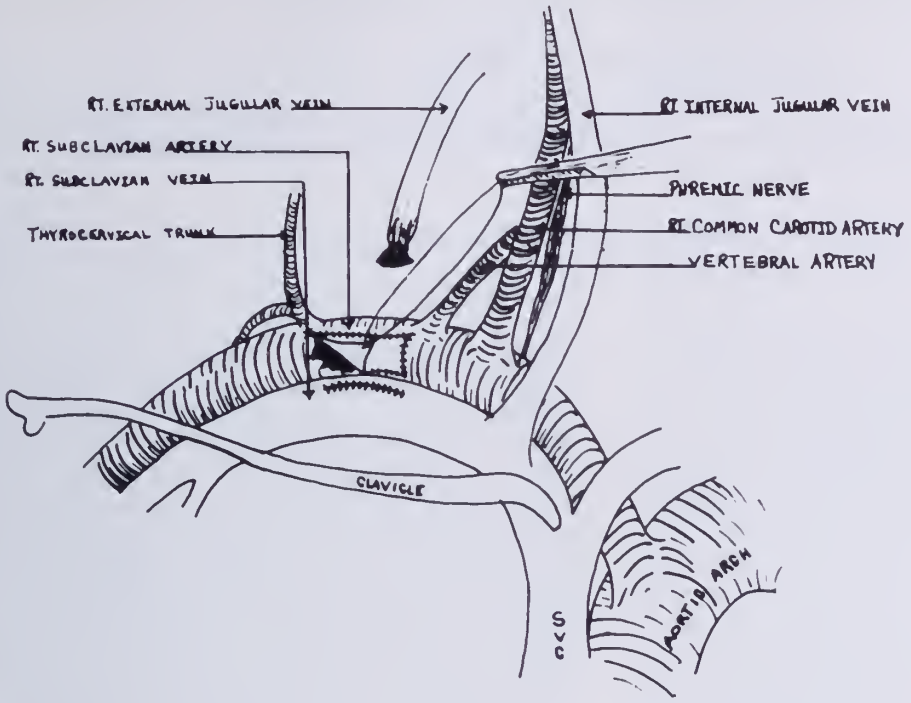


FIGURE 5.
Method of repair. Venous patch graft constructed from portion of ligated external jugular vein.

approaches to the subclavian and the innominate arteries. The most difficult problem, especially in trauma cases, is the acquisition of prompt control of torrential hemorrhage in an area with a dense concentration of arteries, veins and nerves, without aggravating the injury and without jeopardizing the arterial blood flow to the brain.

More complex, recently advocated methods of proximal control in situations when the cerebral circulation could be compromised by the cross-clamping of the carotid, innominate or vertebral arteries, include the use of cardiopulmonary bypass with profound hypothermia[5] or the insertion of a temporary internal shunt into the carotid or innominate arteries[6].

Many authors suggest the routine resection of the medical third of the clavicle[7] . Others believe that a median sternotomy, extended into the neck, provides the most adaptable method for dealing with these relatively inaccessible structures[8].

In desperate situations where exsanguination is imminent, one of the simplest maneuvers is an anterior third interspace incision with immediate compression of the bleeding vessels from inside the chest, using either manual pressure or packing.[9] The obvious advantage of this operation is that it can be done anywhere in a matter of seconds, with no instruments other than a scalpel. With the hemorrhage thus temporarily controlled, valuable time can be gained for the restoration of lost blood volume and the preparation of sterile surgical facilities.

In the present case, the use of this latter technique for proximal control allowed an unhurried supraclavicular dissection with precise, safe clamp applications for the proximal and distal control of the lacerated subclavian artery and vein. In addition, the preparation of the right arm within the operative field not only allowed the cervical and the thoracic incisions to be made without redraping and repositioning the patient, but also made it possible to mobilize another two or three centimeters of distal subclavian and axillary arteries without the necessity of clavicular resection or a separate infraclavicular incision.

Summary

A case is presented of a gunshot wound of the right subclavian artery and vein which were successfully repaired using transthoracic pressure for proximal control, while the arterial and venous repairs were accomplished through a separate supraclavicular incision. The supraclavicular exposure was further enhanced by draping the right arm within the surgical field. The surgical principles of management of this difficult group of vascular injuries are briefly reviewed.

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Factors In Perinatal Care Associated With Poor Pregnancy Outcome In Alabama

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"This article by Dr. Sumners and myself is written to encourage physicians doing obstetrics to become introspective concerning all cases of maternal mortality and morbidity and perinatal mortality and morbidity. We have been 'Southern Gentlemen' too long in regards to obstetric and perinatal problems. We are not having thoughtful critiques among ourselves when obstetric calamities occur.

A physician who has been elected Chief of Staff or Chief of Obstetrics in a Hospital must begin to assume the responsibility of developing open, thoughtful, but critical discussions of these problems at staff conferences. Such frank conferences can be the most important force in the State in reducing maternal and perinatal mortality and morbidity.

The Alabama Chapter, American Academy of Family Physicians and the State Pediatric and Ob-Gyn societies are going to begin to work in concert to encourage such thoughtful reviews."

Charles E. Flowers, Jr., M.D.

Over the past years, methods of identifying and caring for the critically-ill fetus have markedly improved. The accumulation of meaningful data about changes in amniotic fluid constituents that occur with altered fetal status allows appropriate intervention in several pregnancy disease states. Most prominent of these historically is Rh hemolytic disease, as managed using serial determination of amniotic fluid bilirubin (Δ OD 450). Measurement of fetal head size and head growth with ultrasound techniques allows us to detect intrauterine growth retardation. Urinary estriols (or total plasma estrogens) are an index of overall fetal status while oxytocin challenge testing promises to be clinically useful for detecting utero-placental insufficiency. The application of these tests and others as they become available is allowing more accurate obstetric management of high-risk pregnancies and is decreasing death and disease in the perinatal period.

Paralleling the progress of technology in high-risk obstetrics, the availability of intensive care for the sick newborn has increased intact survival in these infants. Sophistication of ventilation methodology normally draws the most attention and has provided significant decrease in morbidity and mortality, especially in patients with hyaline membrane disease. Microtechniques for blood chemical analysis make possible the accurate management of the metabolic abberations which assault the sick baby. Determination of blood pressure by Doppler technique is now available and gives us some idea of blood volume and cardiac output, assisting in the detection of shock and heart disease. Cardiac catheterization and sophisticated surgical techniques increase the chances of survival for the small patient with congenital heart disease. Realizing that a few sick patients may be delivered in areas without the support facilities for neonatal intensive care, the equipment, communication systems and continuing education necessary for transport of these fragile patients have been organized.

In dealing with a high-risk pregnancy and critical neonate population, we have had the opportunity of seeing the benefits derived from the use of these advances. Unfortunately, we have had occasion to view the poor outcomes which can result from lack of proper utilization of this technology. These poor outcomes seem almost invariably to stem from misconception or bad communication concerning the method involved. In an effort to clear up some of these difficulties, this communication is designed to focus on several prominent problems which have come to light in our sick newborn population. The following case studies are representative of our composite experience in poor neonatal outcome associated with obstetric management.

CASE I

Mrs. A is a 25-year-old woman with two living children, the first of whom was delivered by Cesarean section for cephalopelvic disproportion. During this pregnancy, she was followed regularly by her obstetrician and was felt to have no prenatal complications. Estimated date of confinement calculated from the date of the last menstrual period was 5/20/74. Her obstetrician's examination early in the first trimester confirmed the menstrual history. No test of fetal pulmonary maturity was performed. Elective Cesarean section was undertaken on 5/14/74. Labor did not preceed Cesarean section.

The infant weighed 2600 grams (5 lbs., 12 oz.) at birth and had Apgar scores of 9 at one and five minutes after birth. Shortly after delivery, he began grunting, had intercostal and subcostal retractions, tachypnea and was cyanotic in room air. Blood pressure, packed cell volume and blood glucose were normal. The respiratory distress continued to worsen and a chest X-ray was taken which showed normal thoracic and cardiac anatomy, but revealed air bronchograms and granularity of pulmonary parenchyma associated with hyaline membrane disease. He required

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treatment for his hyaline membrane disease with continuous positive airway pressure for three days and with oxygen for an additional seven days. A pneumothorax complicated his primary disease and was treated with tube thoracotomy drainage. The baby survived and was discharged from the hospital 12 days after birth. Cost for hospital services, excluding professional fees, was in excess of $3,000.00.

COMMENTARY—This patient suffered from hyaline membrane disease, a problem caused by functional pulmonary immaturity at the time of delivery. Since this disorder is primarily associated with prematurity, a significant effort has been made in the past to accurately assess gestational age and avoid elective delivery of a premature infant. In addition to estimation of date of confinement by menstrual history and fetal weight by physical examination, ultrasound measurement of fetal head size has been used to estimate gestational age. However, the range of normal measurement which must be taken into consideration provides some degree of error with this method. The (Nile blue) staining of fetal cells from amniotic fluid and use of amniotic fluid creatinine concentration to estimate maturity carry the same difficulty of a large range for each gestational age. In addition, amniotic fluid creatinine is also affected by maternal renal function.

A major problem with all the above mentioned tests is that they attempt to assess gestational age – *not* fetal pulmonary maturity. The occurrence of hyaline membrane disease may well be independent of birth weight and gestational age – explaining its occurrence in apparently full term infants[1]. The availability of a reliable test of fetal *pulmonary maturity* – the amniotic fluid lecithin/sphingomyelin L/S ratio to time this elective delivery would have prevented this baby's hyaline membrane disease.

As with any laboratory procedure, the clinical meaning of the "number" produced is dependent on the methodology of the particular laboratory involved[2]. Current techniques for performing amnio-centesis are such that in trained hands the risks are minimal. In addition to the unnecessary risk of morbidity and possible mortality involved when *elective* delivery is accomplished without assurance of fetal pulmonary maturity, this case points out the cost effectiveness of a laboratory test (less than $50 currently), which may avoid the expenditure of neonatal intensive care (more than $3,000 in this instance).

CASE II

Mrs. B is a 20-year-old primigravida without prenatal complications who presented in active labor at 38 weeks gestation. Fetal weight was estimated to be greater than eight pounds. On initial vaginal examination, a double footling breech was presenting at -2 station with fetal membranes leaking. The cervix was 60 per cent effaced and 1-2 cm. dilated. X-ray pelvimetry revealed pelvic measurements considered borderline for passage of the fetal head. Following pelvimetry, labor was augmented with intravenous pitocin begun 3 hours after admission. Intermittent ausculation of fetal heart rate disclosed no apparent bradycardia or tachycardia. Cervical dilation progressed slowly, requiring 18 hours to reach 9 centimeters. At this point, the breech delivery was assisted utilizing Piper forceps for the after-coming head.

The baby weighed 3855 grams (8 lb. 8 oz.) and had an Apgar score of 3 at one minute. After initial ventilatory and chemical resuscitation, the baby began to breathe and was noted to have generalized tonic seizures within one hour of birth. Her subsequent hospital course was characterized by generalized seizures, a bulging fontanel and apnea with electroencephalographic evidence of cortical death. Autopsy showed a parietal skull fracture and bilateral massive subdural hematomata.

COMMENTARY—This patient illustrates the likelihood of a poor outcome with vaginal delivery of a breech presenting at term in a primigravida. Further indications of impending disaster are found in the borderline pelvimetry, the large fetus and the prolongation of labor. Bird and McElin[3] have produced data indicating improved perinatal morbidity and mortality in term breech presentations when Cesarean section is used more liberally as guided by a breech scoring

	POINTS		
	0	1	2
Parity	Primigravida	Multipara	———
Gestation Age	39 weeks or more	38 weeks	37 weeks or less
Estimated fetal weight	Over 8 pounds (3,630 grams)	7 to 7 lb. 15 oz. (3,620—3,176 gm.)	≤ 7 lb. (3,175 gm.)
Previous breech (term size)	None	One	Two or more
*Dilatation	2 cm.	3 c.m.	4 c.m. or more
*Station	—3 or higher	—2	—1 or lower

*Determined by vaginal examination on admission

Table 1
Andros Scoring System[4]

(Score of 3 or Less Indicates Need For Cesarean Section)

system (see Table I). Perhaps even more pertinent are O'Leary's comments in his discussion of Bird and McElin's data[3] in which he points out the need for use of other tools, such as X-ray pelvimetry and fetal monitoring, in addition to a breech score or less indicating the need for Cesarean section.

The present policy of the management of the breech at University Hospital is:

1. All breeches below 2,000 grams should be delivered by Cesarean section.
2. All footling or full breeches should be delivered by Cesarean section.
3. Frank breeches may be considered for vaginal delivery after careful evaluation of the pelvis and fetus by X-ray pelvimetry and estimation of the fetal size by more than one observer and a thoughtful overall obstetric evaluation. The Zatuchni-Andros scoring system may be helpful in this evaluation. However, if uterine inertia, late or variable decelerations, or major obstetric complications develop, Cesarean section is the preferable method of delivery.

CASE III

Mrs. C is a 35-year-old woman with three previous pregnancies, the last two of which were complicated by Rh sensitization. These two infants required exchange transfusions for hyperbilirubinemia as neonates and survived. During this pregnancy, Mrs. C was found to have a positive anti-Rh antibody titer at approximately 27 weeks gestation and underwent amniocentesis at regular intervals thereafter to determine severity of fetal compromise. Amniotic fluid ΔOD 450 remained in Zone II until 36 weeks gestation when it rose to Zone III, indicating severe fetal anemia and impending or existing hydrops[5]. At this point, the fetus was delivered by Cesarean section in a moderate-sized community hospital.

The baby weighed 3000 grams (6 lbs. 10 oz.) at birth and had an Apgar score of 2 at one minute. She was noted to be edematous, had a moderate amount of ascites and manifested grunting and retraction shortly after the initial resuscitation. Cord blood direct Coomb's test was positive and hemoglobin was 4 grams %. Blood glucose fell to 12 mg% within two hours of delivery. Initial treatment included administration of glucose and sodium bicarbonate, as well as bag and mask ventilation for intermittent apnea. The baby received a partial exchange transfusion with packed red blood cells. Chest X-ray showed extensive atelectasis with air bronchograms. The baby was rapidly transported to the Regional Newborn Intensive Care Unit for further care, especially ventilatory support. On arrival she was apneic, severely acidotic, hypoxic and unresponsive to resuscitative measures.

COMMENTARY—The condition existing in this patient at delivery was hydrops fetalis resulting from severe Rh hemolytic disease. The obstetrician was aware of the value of amniotic fluid bilirubin (ΔOD 450) in predicting degree of fetal anemia and obtained amniotic fluid at frequent intervals in pregnancy. When the ΔOD 450 rose to Liley's Zone III, he knew that this indicated severe fetal anemia and a high risk of fetal death if pregnancy continued unchanged. Therefore, he planned immediate delivery in face of a near-term pregnancy.

Neonates who are product of such a situation will, at the least, have severe anemia, hypovolemia and subsequent hyperbilirubinemia and require blood volume and red cell replacement *immediately* and multiple exchange transfusions within the first few days. Most will have hypoglycemia and require frequent monitoring of serum glucose to guide intravenous therapy. If their disease is more severe, they will require immediate abdominocentesis to alleviate mechanical compromise of ventilation, immediate and likely continued assisted ventilation for the pulmonary edema associated with their increased interstitial water, and intensive respiratory care of the hyaline membrane disease often associated with their primary disease and early delivery. All this care must be carried out without delay to assure *intact survival* of these individuals. Obviously, there must be a large personnel, equipment and laboratory investment in neonatal intensive care in order to appropriately treat such a sick neonate. *Guidelines*[6] outlining the specific needs in this area for each hospital have been recently published by the Alabama Chapter, American Academy of Pediatrics. (The guidelines may be obtained through any member of the Alabama Chapter, American Academy of Pediatrics or from the authors.)

After identification of a high-risk fetus, as in this instance and in other identifiable situations, the baby should be delivered in a facility in which neonatal intensive care is available from the instant the cord is cut. If all the personnel and physical plant necessary to care for an infant are not available, referral to an intensive care unit should be expedited prior to delivery. *Fetal referral* is preferable by far to referral of a sick neonate struggling to breathe.

CASE IV

Mrs. D. is an 18-year-old primagravida with no prenatal complications detected during 39 weeks of gestation. At this point, she was admitted to the labor and delivery suite for elective induction of labor. The cervix was soft, anterior, 90 per cent effaced and 2 centimeters dilated. The vertex presented at 0 station. Fetal membranes were intact. X-ray pelvimetry was not obtained. Intravenous syntocinon was begun and regular uterine contractions ensued. Labor progressed slowly requiring 18 hours for completion of the first stage and 2 hours for the second stage. No aberrations of fetal heart rate were noted on intermittent ausculation between contractions. Delivery was accomplished with some difficulty, using low forceps under cyclopropane anesthesia.

The baby weighed 3100 grams and had Apgar scores of 3 and 5 at one and five minutes, respectively. Shortly after the initial resuscitation, the infant began to have intermittent generalized seizure activity. Search for a metabolic, infectious or structural etiology for the seizures was unrewarding except for the radiologic detection of a non-depressed parietal skull fracture (which was not felt to be an active source of central nervous system irritation). The baby was treated with phenobarbital, the seizures abated and she was discharged to pediatric and neurology follow-up.

TABLE II.

BISHOP SCORING SYSTEM

SCORE	0	1	2	3
DILATION (cm.)	0	1-2	3-4	$\geq$ 5
EFFACEMENT (%)	0-30	40-50	60-70	$\geq$ 80
STATION	−3	−2	−1 or 0	$\geq$ +1
CONSISTENCY	Firm	Medium	Soft	—
POSITION	Posterior	Mid	Anterior	—

COMMENTARY—The cause of this patient's seizure disorder is not readily apparent. The possibility that the seizures resulted from *fetal asphyxia* during labor, undetected by *intermittent* ausculation of fetal heart rate, exists. Certainly, significant *perinatal asphyxia* is indicated by the low Apgar scores. The *trauma* of a difficult delivery, evidenced by the skull fracture, may have played a significant role in producing the seizure disorder.

Elective induction of labor should be done with great care. Such an induction places upon the obstetrician enormous responsibility since any intrapartum complication that may occur during such an induction is generally iatrogenic.

It is felt that strict hospital rules should be established for *elective* inductions of labor. The Bishop scoring system (Table II) should be used and the score recorded in the chart.

1. Elective inductions should generally not be performed if the score is less than 8 or 9.
2. If pitocin is used during the elective induction, the responsible physician must be in constant attendance.
3. Cases which are associated with significant intrapartum complications, perinatal morbidity or mortality, and those that require a difficult forcep operation or Cesarean section for delivery should be discussed at a staff conference.

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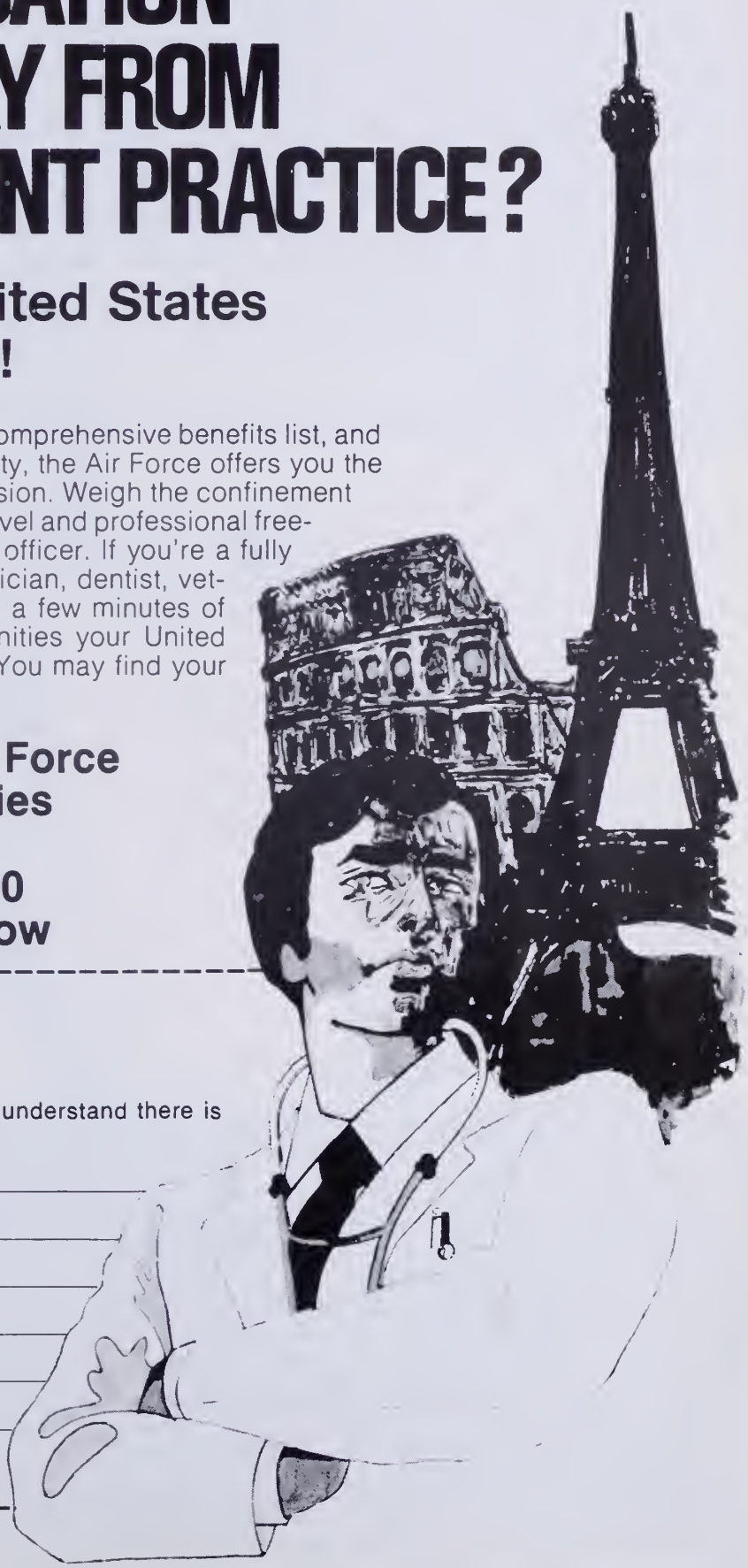
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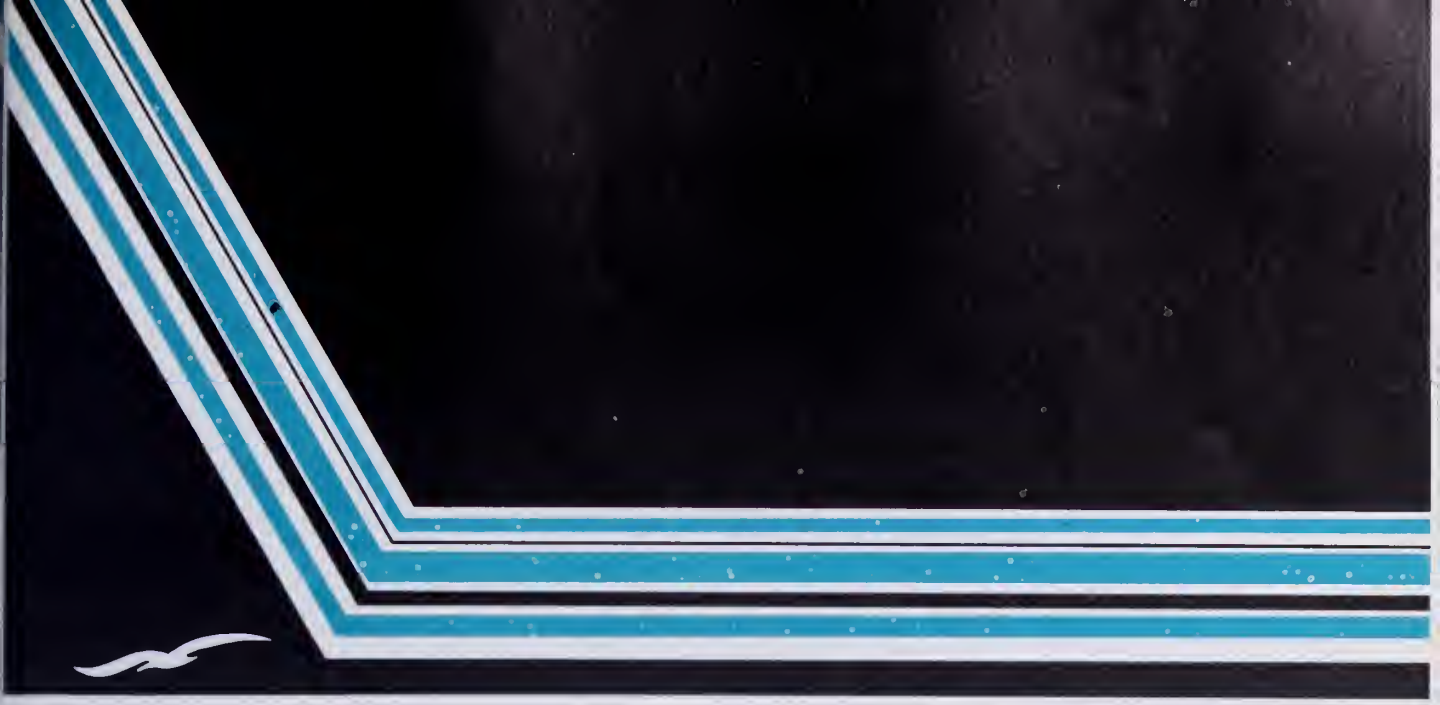
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THE LAW



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By John T. Mooresmith, General Counsel

PROPOSED LEGISLATION—THE PATIENTS' COMPENSATION ACT

Recent headlines, newscasts and documentaries have pointed out the inability of malpractice litigation and professional liability insurance to cope with the problem of alleged professional negligence. Liability is presently determined by a method which is slow, ponderous, costly and at time inequitable. It is a system under which most of the insurance dollar goes to determine the existence of fault and very little of the insurance dollar goes to compensate the injured patient.

Inflation, rising patient expectations, sometimes referred to as the "Marcus Welby Syndrome" and technical problems within the tort system itself, such as a Statute of Limitations which can conceivably extend for 20 years, all go together to create a situation in which insurance companies cannot with any degree of accuracy predict the amount of premium which they need to charge. This results in either an insurance company charging a tremendous premium or refusing to write any professional liability insurance at all.

In this Session of the Alabama Legislature, MASA will introduce legislation calculated to insure that the problems currently being experienced in New York and California do not reach Alabama. This legislation is entitled "The Patients' Compensation Act."

The Act will establish a Patients' Compensation Board of Alabama to hear and determine claims against health care providers for bodily injury or death. Coverage by the Act will be compulsory, unless the patient gives to the health care provider written notice rejecting the provisions of the Act prior to any injury giving rise to a potential claim for damages.

In the case where emergency care is given to an unconscious patient, once the patient becomes able to reject the provisions of the Act, he may do so for any injuries occurring after the time he specifically rejects the provisions of the Act and at that time the health care provider will be permitted to decline to render any further treatment to the patient. The provisions of the Act would apply to the treatment rendered prior to the time the patient gave written notice of rejection.

The Act would maintain the tort system in that negligence would have to be proven before the patient becomes entitled to any recovery; however, the claims would be heard by a full-time administrative board instead of a jury as under the present system. The maintenance of the tort system is essential to prevent a health care provider from becoming a guarantor of good results.

The board would consist of two attorneys, two physicians and two laymen and would be able to judge claims without being subject to the same degree of emotionalism as a lay jury. By being a full-time board, they would become educated in the area of medical malpractice. This would make the work of the attorneys much easier because they would not have to educate a different jury each time they tried a claim. A full-time board would be able to understand the evidence presented much better, thereby making the hearings less costly and time consuming.

The administration of the Act would be completely funded by annual fees ranging from $250 for each licensed hospital with 250 or more beds to $15 for each registered nurse.

Awards would be limited to a maximum of $300,000 including compensatory and punitive damages. In certain instances, the board could create a "running award" and could order payments at such intervals and in such amounts as the board deemed to be reasonable and proper. Any party to the proceedings may at any time after the issuance of a running award petition the board for modification or termination of said award. The installments would be based on the continuing disability of the patient and could be adjusted if the patient died or if his circumstances changed. In no event, however, could the payments exceed the limits of liability provided in the Act.

The bill also contains provisions to insure that advance payments made to a plaintiff by an insurance company are not to be deemed admissions of liability by the defendant. This will allow insurance companies to make payments to patients with claims that the insurance company feels are meritorious, without the company having to fear that such payments will be deemed as an admission of liability. Hopefully, this will cut down the number of claims that are filed out of anger and resentment. If, however, a patient to

whom advance payments have been made, goes ahead and files a claim and recovers an award, then such advance payments will be credited against the amount of the award which the patient recovers.

Since claims under this Act will be heard by a board educated in the area of medical malpractice, the attorney's burden in handling a claim will be greatly eased. In view of this, the Act contains a provision limiting the amount of claimant's attorney's fees which can be charged on a contingent fee basis. The scale under the schedule of fees ranges from 40 per cent of any amount recovered up to $1,000 to 10 per cent of any amount recovered over $100,000. This schedule will retain the benefits of the contingent fee arrangement which permits a claimant who cannot afford an attorney to still be able to have his claim heard while placing a limit on the maximum amount which the attorney could recover, thereby eliminating the abuses of the contingent fee arrangement.

The limitation for filing a claim under the Act would be within two years of the act, omission or failure complained of, or within six months of the date when the act, omission or failure was discovered or in the exercise of reasonable care should have been discovered, whichever is earlier, but in no event shall any claim be valid if commenced more than six years after the act, omission or failure complained of. The provisions of this section apply to all persons regardless of minority or other legal disability and apply to all claims commenced under the Act as of its effective date. This will place a maximum time period of six years from the date of the occurrence for the filing of a claim. Under the present Statute of Limitations, a suit can be filed up to 20 years from the date of the occurrence in the case of a legally disabled person (minor, incompetent, etc.)

The insurance commissioner is given the power to establish an Alabama Joint Underwriting Association, if he determines that such an association is necessary to provide insurance to health care providers. The commissioner is also authorized to dissolve such an association, if one is established, if he determines that such an association is no longer necessary and that an adequate market is maintained by the private insurance industry. It is hoped that this provision will not be necessary because the provisions of this Act should provide a system under which insurance companies would compete to write insurance policies.

A great deal of thought and effort has gone into this proposed Patients' Compensation Act in order to arrive at a piece of legislation which would be fair to all parties concerned and would still provide the predictability which insurance companies must have in order to write insurance policies.

It will take a major effort on the part of all physicians in Alabama if this bill is to have any hope of passage. MASA's members are urged to contact their local legislators and emphasize to them that the problems of other States in the field of professional liability insurance are growing and will spread to Alabama unless enlightened legislation is enacted now. If you plan to contact your local legislator, and would like some additional information on MASA's proposed bill, you can call the State Association, toll free at 1-800-392-5668, and we will give you any information you might need.

THE MONTH IN *Washington*



The AMA told Congress that Federal legislative remedies for the professional liability crisis could create a worse situation and in some cases result in even higher liability costs.

Testifying before the Senate Health Subcommittee, AMA President Malcolm C. Todd, M.D. declared "it is far wiser for States to enact varied innovative legislative responses to the problem than to have an untested and unproved scheme enacted on a nationwide basis by the Federal government, particularly where such proposals contain elaborate provisions for Federal regulation of medicine."

Dr. Todd said "there is no question that a crisis exists in medical liability insurance. The complexity of the problem, and its varied causes convince us, however, there is no single solution, be it arbitration, 'no-fault' or anything else."

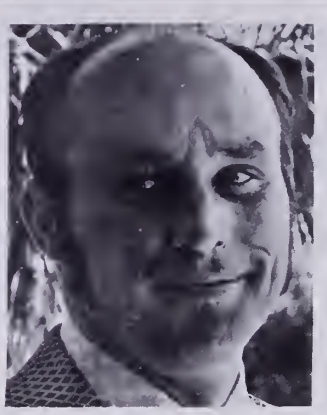
Dr. Todd pointed out, "Perhaps the eventual solution in most States will be a synthesis of various approaches...enactment of a Federal program would eliminate the State's initiative and would establish a program that would fail to recognize individual State problems."

One of the bills before the Subcommittee proposes compulsory arbitration tied to licensure and relicensure of physicians, review of all physicians' services by Professional Standards Review Organizations (PSRO's), acceptance of Federal fee schedules under Medicare and required consultation before surgery. These restrictions "have no demonstrated relationship to the problems of medical liability or liability insurance," Dr. Todd told the Subcommittee. "Rather the crisis-need for remedies for these problems is being used as a device for imposition of further government meddling in the practice of medicine."

Most of the suggested remedies so far carry bad news for some group, either increased governmental controls on physicians and hospitals, loss of fee income for lawyers, or some undermining of medical consumers' right to sue. In addition, insurance has always been very much a State prerogative in this country and Federal legislation that infringes on States' powers over insurance is always difficult to enact.

In the absence of a clear and unequivocal call from some segment of the affected public and professions, the likelihood of Congressional action this year on a broad liability bill appears remote. An undercurrent of opinion on Capitol Hill seems to be that the problem should be faced when a national health insurance program is considered.

NECROLOGY



E. P. (Hugh) Pruitt, III, M.D.
1936 - 1975

Dr. Hugh Pruitt, III, Dothan Psychiatrist, died May 1, in the crash of a private plane enroute from Birmingham to Dothan. A graduate of Birmingham Southern College, Dr. Pruitt received his medical degree from the Medical College of Alabama in 1962. He interned at Carraway Hospital and entered private practice (FP) in 1965 in St. Petersburg, Florida.

From 1967 to 1969, he served as resident, General Psychiatry, at the Medical College of Alabama and the University of Florida. He returned to St. Petersburg for four years in private practice, Psychiatry—Adult, Adolescent and Child.

He moved his practice to Dothan in January, 1974.

He was a member of the Houston County Medical Society, MASA, Southern Medical Association, Alabama and American Psychiatric Associations and the Academy of Psychosomatic Medicine.

He is survived by his wife, Sandi, and their two sons, Brad and Chris.



Rufus C. Partlow, M.D.
1885 - 1975

In the May, 1975 issue of the *Journal* (Vol. 44, No. 11), the photo of Dr. J. S. Tarwater, who passed away June, 1974, appeared where the photo of Dr. Partlow was intended. This occurred on page 649, in the Necrology feature. The editors wish to express their apologies for this error.

PRESCRIBING INFORMATION

Antiminth (pyrantel pamoate) Oral Suspension

Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13μg/ml.) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with pre-existing liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

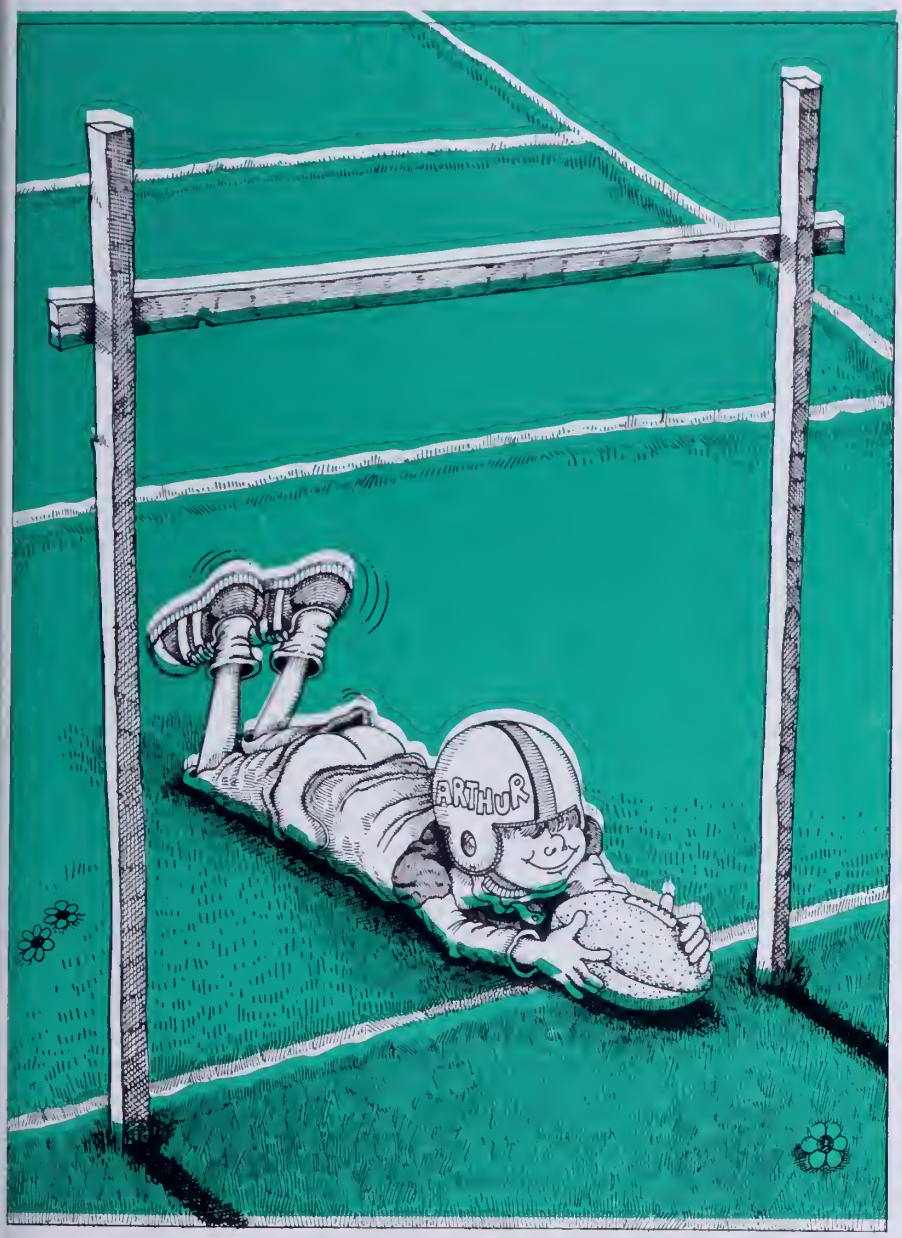
Dosage and Administration. *Children and Adults:* Antiminth Oral Suspension (50 mg. of pyrantel base/ml.) should be administered in a single dose of 11 mg. of pyrantel base per kg. of body weight (or 5 mg./lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 cc. of Antiminth per 10 lb. of body weight. (One teaspoonful = 5 cc.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

How Supplied. Antiminth is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg. pyrantel base per ml., supplied in 60 cc. bottles and Unitcups™ of 5 cc. in packages of 12.

ROERIG Pfizer
A division of Pfizer Pharmaceuticals
New York, New York 10017

WORMS BLITZED



A single dose of Antiminth (1 cc. per 10 lbs. of body weight, 1 tsp./50 lbs.—maximum dose, 4 tsp=20 cc.) offers highly effective control of *both* pinworms and roundworms.

Antiminth has been shown to be extremely well tolerated by children and adults alike in clinical studies.* Pleasantly caramel-flavored, it is non-staining to teeth and oral mucosa on ingestion... doesn't stain stools, linen or clothing.

One prescription can economically treat the entire family.

ROERIG Pfizer
A division of Pfizer Pharmaceuticals
New York, New York 10017

NSN 6505-00-148-6967

Pinworms, roundworms controlled with a single, non-staining dose of

ANTIMINTH®

(pyrantel pamoate)

equivalent to 50 mg. pyrantel/ml.

ORAL SUSPENSION

*Data on file at Roerig.

Please see prescribing information on facing page



Physician Placement Service In Alabama

The Medical Association of the State of Alabama maintains the Physicians' Placement as a service to the medical profession in the state of Alabama. Opportunities for practice in Alabama will be published and will be distributed to physicians making inquiry. Physicians wishing to establish practice are invited to submit a resume to be kept on file with the Association. For further information write to: Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, 19 South Jackson Street, Montgomery, Alabama 36104, or Telephone 263-6441.

LOCATIONS WANTED

(Physicians interested in locating in Alabama)

General Practice: Age 30; University of Alabama 1974; seeking associate practice in Greater Birmingham area. Available July 1975. LW-1

General Practice: Age 30; University of Kansas 1970; Board certified? seeking associate or group practice. Available July 1975. LW-1/1

Internal Medicine: Age 35; University of Missouri 1967; National Board; Board Certified; seeking group or institutional practice (int. med. and cardiology). Available July 1975. LW-4

Internal Medicine, hematology or hematology-oncology: Age 32; Temple University 1969; National Board; Board certified; seeking associate, group or institutional practice. Available August 1975. LW-4/1

Emergency Medicine: Age 33; University of Louisville 1970; National Board; Board eligible; seeking institutional practice. Available August 1975. LW-O

Obstetrics-Gynecology: Age 35; Downstate Medical Center 1965; Board Certified; National Board; seeking solo, associate, group or institutional practice. Available July 1975. LW-5

Ophthalmology: Age 39; Ohio State University 1963; Board eligible; seeking associate, group or solo practice. Available July 1975. LW-10

Ophthalmology-Ophthalmic Pathology: Age 29; Meharry 1970; Board eligible; seeking associate and/or institutional practice. Available July 1976. LW-10/1

Pediatrics: Age 31; University of Alabama 1970; National Board; Board eligible; seeking associate or group practice. Available August 1976. LW-7

Surgery: Age 34; Wayne State University 1967; Board eligible; seeking solo, associate, or group practice. Available December 1975. LW-8

Surgery-Thoracic & Cardiovascular: Age 38; Medical College of South Carolina 1964; Board certified; seeking group practice. Available September 1975. LW-8/1

Surgery-Thoracic & Cardiovascular: Age 35; Ohio State University 1966; Board certified; seeking associate or group practice. Available January 1976. LW-8/2

Urology-Urol. Surgery: Age 31; University of Tennessee 1969; National Board; seeking associate or group practice. Available Jan-Feb 1976. LW-9

Urology: Age 30; Northwestern 1968; National Board; Board eligible. Available January 1976. LW-9/1

PHYSICIANS WANTED

(Opportunities For Practice)

General Practitioner, Obstetrician-Gynecologist, Family Practitioner needed in progressive coastal community with trade area of 30,000 population. Two man practice located adjacent to an excellent 100-bed hospital. Medical school within 55 miles. Unlimited hunting, fishing, golf, tennis and water sports. PW-1

Pediatrician: one or two pediatricians needed in thriving practice in North Alabama. Office space is adequate and located one block from hospital. Population of the area is approximately 100,000. Schools and receational facilities are excellent. Several churches. PW-1/2

General Practitioner wanted for associate practice with two Family Practitioners, ages mid-thirties. New 100-bed hospital, new office building being designed adjacent to hospital. Full time after hours E. R. coverage. Located in North Alabama mountain lakes region. Town of over 13,000 population. Excellent school systems, public and parochial. Invitation to visit with expenses paid will be directed to those qualified. PW-1/3

General Practitioner; opportunity in Central Alabama community with a trade area of 30,000-35,000 population. Nearest large city, 10 miles, with 135,000 population. Established practice available because of recent death of physician. Financial assistance available to offset moving expenses. PW-1/4

General Practitioner; associate wanted in a three physician general practice in a rural county near Mobile. Salary initially with anticipated early partnership arrangement. 30-bed county hospital adjoining the office. PW-1/5

One or more **Pediatricians** and one or more **Internal Medicine** and/or **Family Practitioners** wanted in town located in northwestern section of the state. 63-bed general short term acute city-owned hospital, accredited by JCAH. The City has built a modern, new clinic building adjacent to the hospital. Office suites available rent free for first 12 months. Salary offered to physicians by the city for the first six months, non-refundable. PW-1/6

Wanted– **2 Internists, 2 Ob-Gyn, 2 Pediatricians, 1 Urologist, 1 Anesthesiologist.** Fee for service basis, gross guarantee 1st and 2nd year. New office space to be available next to hospital. 100-bed hospital, modern well equipped, fulltime radiologist and pathologist. Two general surgeons and 9 general practitioners now serving population base 40,000. Unemployment in area less than one percent. Excellent recreation area. Invitations to visit with expenses paid will be directed to those qualified. PW-1/7

General Practitioner: Opportunity in town of 3,000 population located in west Alabama in trade area of 20,000 population. 30-bed hospital in the town. Nearest large city 50 miles distant, population of 150,000. The Medical Clinic Board is authorized by the town to provide office space and arrange adequate housing. Farming and industry in the community. Churches, schools, and recreational activities. PW-1/8

Unique opportunity for **Family Practice** in city of 40,000 population, located in Central Alabama. Good location for outdoor activities, near larger cities. PW-1/9

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Digest of Actions of the State Board of Censors

Herewith is presented a Digest of Actions taken at the May 21 meeting of the State Board of Censors:

1. Approved Financial Statement for period ending April 30, 1975, showing receipts of $53,195.32 and disbursements of $43,604.83.
2. Disapproved expenses for representative to attend Fifteenth National Conference on Physicians, Schools and Communities, sponsored by Department of Health Education of the AMA, November 20-21, 1975 in Chicago, Illinois.
3. Approved contribution of $500 by MASA for financial support of 1975 Lieutenant Governors' Conference, August 24-27, 1975, Grand Hotel, Point Clear, Alabama.
4. Received as information report on the National Conference on Health Planning, April 24-26, 1975, University of North Carolina, Chapel Hill, North Carolina.
5. Received as information letter from C. H. William Ruhe, M.D., Director of AMA Division of Medical Education, stating that the Continuing Medical Education Accreditation Program of MASA has advanced from provision to full status for a four-year period.
6. Instructed the President to write a letter to Dean Willard expressing MASA's concern with the problems involved in recruitment of medical students by communities, suggesting that this should be handled by the Executive Dean's Office.
7. Received as information report from the Council on Medical Education.
8. Received as information final report of the Third Special Session of the State Legislature.
9. Concurred in the endorsement of all recommended bills by the MASA Council on Legislation except the "20/40" bill, which Board referred back to the Council for further study.
10. Formed Ad Hoc Committee to work directly with problems concerning the Patients' Compensation Board.
11. Received as information report from Socioeconomic Council.
12. Requested study on health insurance policies be submitted to Council on Socioeconomics.
13. Approved study of the California Relative Value Index by Interspecialty Council.
14. Received as information report from Public Affairs Council.
15. Received as information report from Medical Service Council.
16. Received as information report from Interspecialty Council.
17. Appointed James W. Green, M.D., Mobile, Alabama for full term on the Board of Health Council on Prevention of Disease and Medical Care.
18. Appointed George E. Hardy, M.D., Birmingham, to the Board of Health Council on Cost and Administration.
19. Received as information results of the computerized billing survey and directed Mr. Patterson to contact companies for information concerning computer billing services.

Digest of Actions of the State Committee of Public Health

Herewith is presented a Digest of Actions taken at the May 21 meeting of the State Committee of Public Health:

1. Interviewed physicians regarding late Death Certificates. Referred to the legal requirements and penalties for late filing and required affidavits for Death Certificates filed 60 days or more after death.
2. Adopted regulation changes recommended by the Radiation Advisory Board of Health.
3. Authorized release of information regarding insanitation in schools from deficient sewage disposal systems, food service sanitation deficiencies and unsafe school water supplies. (Summary reports of deficiencies were compiled from Revenue Sharing Fund Survey and individual complaints will be filed by schools with cooperation from health and education officials.)
4. Received as information report on designation of Health Service Areas as presented by the Governor to the Secretary of DHEW.
5. Approved purpose and scope of research for Hospital Regionalization Study.
6. Considered plan for Model Dental Care Program in Macon County and referred this to three agencies for review, revision and resubmission.
7. Approved FY 1974-75 Alabama Community Mental Health Facilities Plan, effective May 30, 1975.
8. Approved allocation of 1974 Community Mental Health Construction Funds as follows: $168,000 —Marshall-Jackson Mental Health Center $100,000—Western Mental Health Center, Jefferson County.
9. Referred request from two competing nursing homes for ICF beds in Franklin County to the "A" and "B" Agencies for review and recommendation.
10. Approved Certificate of Need for Holy Name of Jesus Hospital, Gadsden, as being consistent with the 1975 State Plan.
11. Concurred with adverse finding and recommendation for Dothan Nursing Home, due to request of beds in excess of the State Plan.
12. Approved Interim Guidelines on Acquiring Computerized Azial Tomography and requested more stringent requirements for permanent guidelines be considered at the July Meeting.
13. Approved revised curriculum for EMS training and authorized scheduling of Public Hearing for consideration of Rules, Regulations and Standards for EMS.
14. Approved Medicaid Plan Amendments, providing for decreases in services because of shortage of funds, effective June 1, 1975.
15. Adopted MASA Peer Review procedures for Medicaid

as update on requirements and provision for appeal mechanism.

16. Authorized State Health Officer and Medicaid Director to notify providers of the termination of the total Medicaid Program, effective July 1, 1975, subject to change depending on supplemental appropriations by the Legislature.
17. Approved request for training authorization for Podiatrist in Mobile. Withheld further authorizations pending completion of Manpower Study.
18. Reviewed Nurse-Midwife Legislative proposal with Dr. Laurene Gilmore. Deferred action to June Meeting, with suggestions for changes to be negotiated between attorneys, nurses and Dr. Ron Henderson.
19. Received report on follow-up of Perinatal Advisory Council suggestions, authorized committee to work under the direction of Council of Prevention of Disease and Medical Care and reports its advice to Committee of Public Health through Chairman of the Council.
20. Received Directory of Licensed Health Facilities, 1975.
21. Was advised of retirement of John D. Rayfield, M.D., effective June 30, 1975, from five counties.
22. Reviewed and approved following bills for introduction into Legislature: Industrial Health Epidemiology and Occupational Safety and Health Act dealing with Ionizing Radiation.
23. Received reports on the Cancer Detection Program for April, Disaster Project Report, 314(d) Federal Grant Nationwide Summary, and comments relating to proposed standards of water supplies under PL93-523.

INSOMNIACS BEWARE!

A natural sleep-producing agent, labeled "Factor S," has been found in the cerebrospinal fluid of sleep-deprived goats in studies conducted by Dr. John Pappenheimer, professor physiology, Harvard Medical School.

As reported in a recent issue of *Medical World News*, "Factor S" appears to be the same in different animal species, for it is capable of inducing sleep in other small animals, such as rats, cats and rabbits, when transferred to them from goats.

The exact identity of "Factor S" is unknown, but once identified, synthesis may be possible, which would then set the stage for production of a nonhabit-forming, harmless remedy for insomnia.

THE VITAMIN C CONTROVERSY

The latest word on the effectiveness of large doses of Vitamin C in preventing colds comes from a report published in the April issue of *"The Medical Letter,"* an authoritative, unbiased publication, which states that a review of recent clinical studies indicates that substantial amounts of vitamin C do not prevent colds.

The review covers many of the recent prospective studies on the effects of megadoses of the vitamin on respiratory illness. It concludes that the evidence suggesting that vitamin C might reduce either the severity or duration of colds is not convincing.

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Measuring cause and effect

Cause: High levels of anxiety
Effect: Exacerbation of irritable bowel syndrome



When barium fills the whole colon, there is also a reflux through the ileum so that ileum is superimposed on colonic shadows. The tube-type descending colon revealed is normally associated with the diarrheal phase of the irritable bowel syndrome.

Case History:* 27-year-old female

Before treatment

Chief Complaint: Abdominal pain and diarrhea.

Present Illness: Intermittent, left-sided, lower abdominal pain for over a year; pain, unassociated with menstrual periods or eating, lasted several hours. Abdominal symptoms occurred in attacks lasting 1-2 days with remissions of 3-4 days. Diarrhea accompanied attacks. No weight loss, nausea or vomiting.

Personal History: Married, 2 children. Somewhat restless, tense and anxious.

Physical Examination: 8/16/73. System review within normal limits. Weight 95 lbs. Petite, pleasant, cooperative patient with no obvious signs of illness.

Abdomen: Spastic, tender sigmoid colon. Otherwise normal.

Rectal: Normal mucosa and stool. No rectal bleeding or excess mucus or fat in stools.

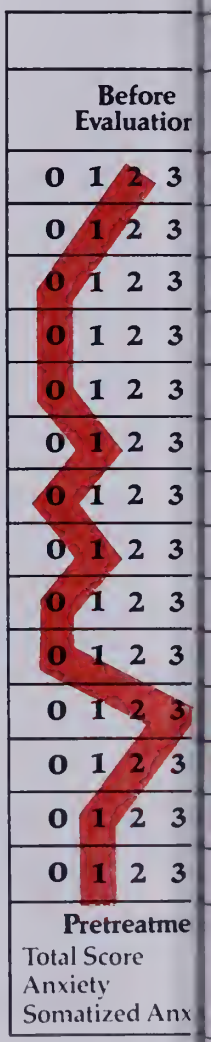
Sigmoidoscopy: Normal sigmoid mucosa.

Laboratory tests: Within normal range. No occult blood in 3 successive stool examinations.

Impression: Irritable bowel syndrome. X-rays 7/25/73 showed tube-type descending colon. Librax, one capsule *q.i.d.*, prescribed as adjunctive therapy on 8/23/73. Symptoms of anxiety evaluated with Hamilton Anxiety Scale on same date.

*Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley, N.J. 07110.

Although this is an actual case history, not all cases of irritable bowel syndrome can be expected to respond this rapidly to therapy.



Undue anxiety—often a forerunner of irritable bowel syndrome

Irritable colon is a disorder commonly seen in the average physician's daily practice. Expressed as diarrhea and/or constipation, the disorder affects mainly the colon's tonicity. Usually spasms are produced, mediated through the autonomic nervous system. Such abnormal activity can easily derive from emotional stress, which causes parasympathetic stimulation. Hence the direct relationship between anxiety and irritable bowel syndrome. Reducing anxiety, one of the causative factors, can be expected to counter the effect, exacerbation of irritable bowel syndrome.

Librax is the logical adjunct in treating irritable bowel syndrome

☐ Dual action of Librax helps relieve both anxiety and somatic symptoms.

☐ Librax alone provides both the antianxiety action of Librium® (chlordiazepoxide HCl) and the anti-secretory-antispasmodic action of Quarzan™ (clidinium Br).

Relief of symptoms linked to relief of anxiety

Hamilton Anxiety Scale	
Parameters	**After Evaluation**
Anxious Mood	0 1 2 3 4
Tension	0 1 2 3 4
Fears	0 1 2 3 4
Intellectual	0 1 2 3 4
Depressed Mood	0 1 2 3 4
Insomnia	0 1 2 3 4
Somatic (muscular)	0 1 2 3 4
Somatic (sensory)	0 1 2 3 4
Cardiovascular Symptoms	0 1 2 3 4
Respiratory Symptoms	0 1 2 3 4
G.I. Symptoms	0 1 2 3 4
G.U. Symptoms	0 1 2 3 4
Autonomic Symptoms	0 1 2 3 4
Behavior at Interview	0 1 2 3 4
Patient's first evaluation was made 8/23/73 prior to treatment. The second evaluation, made 10/4/73, shows concurrent drop in anxiety and somatized symptoms.	**Posttreatment** Total Score 4 Anxiety 1 Somatized Anxiety 3

After treatment

Abdominal pain and discomfort less troublesome although still some frequency and looseness of the bowels. Patient felt significantly better and less anxious. Bowel movements returned to regular pattern when therapy discontinued on 10/4/73.

10/4/73: Second Hamilton Anxiety Scale completed.
Follow-up (2 months later): Patient off all therapy, normal bowel function, no abdominal pain, no significant anxiety feelings or undue tension or nervousness.

Charted at left, the Hamilton Anxiety Scale ratings show how somatized anxiety symptoms—especially gastrointestinal, the complaint rated highest—diminished along with anxiety symptoms. The first six parameters plus "behavior at interview" measure anxiety and the remaining seven, somatized anxiety. Between the first and second evaluations, the sum of the anxiety and the sum of the somatized symptoms each decreased by 4 points on the rating scale.

☐ Both components are conveniently contained in a single capsule.

☐ Dosage is adjustable within the range of 1 or 2 capsules 3 or 4 times daily; up to 8 capsules daily in divided doses.

☐ One capsule before each meal and two at bedtime usually prescribed.

Please see summary of product information on following page.

Dual-action adjunctive

ROCHE

Librax®

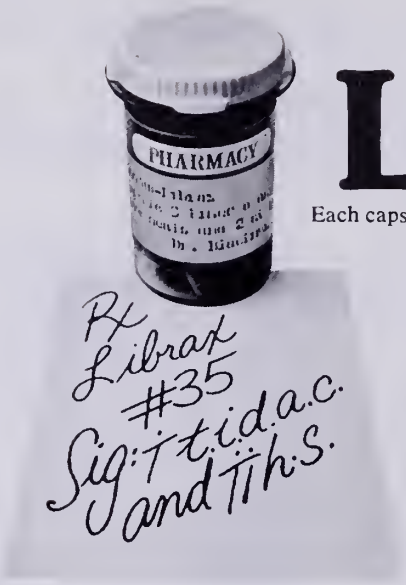
Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

for the anxiety-related symptoms of irritable bowel syndrome

Dual-action adjunctive

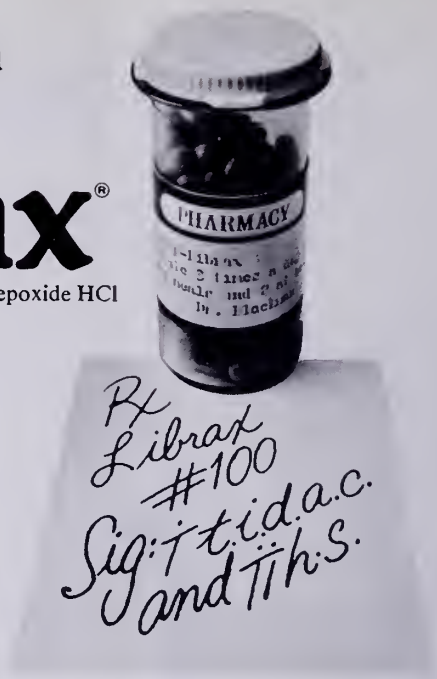
Librax®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.



Initial R_x

The initial prescription permits evaluation of patient response to therapy



Follow-up

Follow-up therapy with a prescription for 2 to 3 weeks' medication usually helps maintain patient gains.

for the anxiety-related symptoms of irritable bowel syndrome · duodenal ulcer · upper functional gastrointestinal disorders

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Symptomatic relief of hypersecretion, hypermotility and anxiety and tension states associated with organic or functional gastrointestinal disorders; and as adjunctive therapy in the management of peptic ulcer, gastritis, duodenitis, irritable bowel syndrome, spastic colitis, and mild ulcerative colitis.

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido —all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

Dosage: Individualize for maximum beneficial effects. Usual maintenance dose is 1 or 2 capsules, 3 or 4 times a day, before meals and at bedtime. Geriatric patients—see Precautions.

How Supplied: Librax® Capsules, each containing 5 mg chlordiazepoxide hydrochloride (Librium®) and 2.5 mg clidinium bromide (Quarzan™)—bottles of 100 and 500; Prescription Paks of 50, available singly and in trays of 10.

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Around The State

NEW MEMBERS

BALDWIN COUNTY

MCLEOD, John Calvin, Jr., b 16 mc Tulane 41, recip. La. 42, 104 Nicole Place, Lake Forest, Daphne, Ala. GP.

CALHOUN COUNTY

MCDONALD, Martha Williams, b 26, mc Pa. 63, recip., NBME 71, 1010 Christine Ave., Anniston, Ala., 36201. I. (Transferred from Jefferson County).

CHAMBERS COUNTY

CORDER, Vernon Woodard, b 12, mc Hahnemann 44, recip. Kentucky 48, 103 Tyler Terrace, West Point, Ga. 31833. Anes.

KALLA, Paul John, b 23, mc St. Louis Univ. 52, recip. Missouri 52, Medical Dept., WPP Personnel Service Center, Shawmut, Ala. 36876. I.

DALLAS COUNTY

DEMENT, Leon Nathaniel, b 46, mc LSU 71, recip. La. 74, Pine Glen, Selma, Ala. 36701. I.

JEFFERSON COUNTY

BAJAJ, Subhash Chander, b 43, mc Maulana Azad, Delhi, India 65, recip. Rd. Island 72, Univ. Ala., Univ. Station, Birmingham, Alabama. 35294. GE.

CEZAYIRLI, Sevim Eran, b 28, mc Univ. Istanbul 51, recip. Va. 69, Suite 510 Professional Office Bldg., 800 Montclair Rd., Birmingham, Ala. 35213. PN.

CURTIS, Charles Alfred, b 35, mc Ala. 65, sb 66, Carraway Methodist Hospital, Birmingham, Ala. 35234. GP.

CONRAD, Marcel Edward, Jr., b 28, mc Georgetown 53, recip. NBME 54, Univ. Ala., Birmingham, Ala. 35234. GP.

DEINLEIN, Donald Anthony, b 37, mc Univ. Maryland 64, recip. NBME 65, 619 S. 19th St. Birmingham, Ala. 35233. OR.

FITZPATRICK, William Oliver, III, b 46, mc Ala. 72, recip. NBME 73, Lloyd Noland Hosp Fairfield, Ala. 35064. Anes.

GANDY, Roy Edward, b 44, mc Univ. Ala. 73, recip. NBME 74, Baptist Medical Center - Montclair, Birmingham, Ala. 35213. S.

HOLT, Bobby Bernice, b 39, mc Univ. Ala. 69, recip. NBME 70, 800 Montclair Rd., Birmingham, Ala. 35213. S.

LOGIC, Joseph Richard, b 35, mc Marquette Univ. 60, recip. Wisconsin 61, UAB Medical Center, Birmingham, Ala. 35294. Nuclear, I., C.

MACLEAN, William Augustus Howe, b 39, mc Columbia Univ. 65, recip. NBME 66, UAB Medical Center, Birmingham, Ala. 35294. I.

WIRTSCHAFTER, David Daniel, b 41, mc Univ. Oregon 67, recip. NBME 68, Univ. Station, Box 72, Birmingham, Ala. 35294. PD.

MARION COUNTY

HOLCOMB, Robert Ray, b 40, mc Vanderbilt 72, recip. Fla. 73, P. O. Box 369, Hamilton, Ala. 35570. GP.

MOBILE COUNTY

PETERSON, Raymond Dale August, b 30, mc Univ. Minn. 55, recip., Minn. 55, 99 Hillwood, Mobile, Ala. 36608. Pd.

MONTGOMERY COUNTY

HATCHER, Harold Amos, Jr., b 45, mc Vanderbilt 70, recip. Kentucky 1974, 2507 Burkelaun Dr., Montgomery, Ala. 36111, Opth.

MORGAN COUNTY

STONE, William Pipkin, Jr., b 35, mc Vanderbilt 60, recip. Tenn. 60, 1201 13th Ave., S.E., Decatur, Ala. 35601. I.

CHANGE OF ADDRESS

CALHOUN COUNTY

JOHNSON, Roderick G., present Anniston, Ala. to Rt. 9, Box 798, Oxford, Ala. 36201.

STRANGE, Charles E., present Jacksonville, Ala., to P. O. Box 307, Jacksonville, Ala. 36265.

CHAMBERS COUNTY

MCCRORY, Ellann, present Langdale, Ala., to P. O. Box 425, Lanett, Ala. 36323.

COFFEE COUNTY

CROOK, Donald H., present Elba, Ala. to 207 Brunson, Enterprise, Ala. 36330.

GRIMES, James T., present Enterprise, Ala. to 207 Brunson, Enterprise, Ala. 36330.

COLBERT COUNTY

BOWEN, Robert K., Jr., present Sheffield, Ala. to P. O. Box 917, Sheffield, Ala. 35660.

SYSLO, Joseph A., present Sheffield, Ala. to 3464 Birchtree Dr., Hoover, Ala. 35226.

DALLAS COUNTY

KENAN, William O., present Selma, Ala. to P. O. Box 1189, Selma, Ala. 36701.

JEFFERSON COUNTY

GAINES, Herbert F., present Birmingham, Ala. to 801 Princeton Ave. S.W., 8th Floor, Birmingham, Ala. 35211.

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WIRTSCHAFTER, David D., Jefferson 934-5055

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MARION COUNTY
HANFORD, John Raymond, b 08, mc Hahnemann 48, recip. Mich. 51, Rt. 1, Hamilton, Ala. 35570. S.
MOBILE COUNTY
DOWLING, Edmund Augustine, b 27, mc National Univ. Ireland 51, sb 60, P. O. Box 244, Montrose, Ala. 36599. Path.

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KIMMICH, Homer M., 1907 Oak Knoll Circle, Mobile, Ala. 36607. From Baldwin County Medical Society.

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	Trichuris	Ascaris	Hookworm	Pinworm
cure rates mean (range)	68% (61-75%)	98% (91-100%)	96% —	95% (90-100%)
egg reduction mean (range)	93% (70-99%)	99.7% (99.5-100%)	99.9% —	— —

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SPECIAL ISSUE

AMA DELEGATES REPORT



JANUARY 1975

The Medical Association of the State of Alabama

19 South Jackson Street
Montgomery, Alabama 36104

AMA DELEGATES

Paul W. Burleson, M.D.
Birmingham

Orizaba Emfinger, M.D.
Union Springs

William E. White, M.D.
Anniston

ALTERNATE DELEGATES

E. B. Glenn, M.D.
Birmingham

Alfred Habeeb, M.D.
Birmingham

Julius Michaelson, M.D.
Foley

TO: Members of the Medical Association of the State of Alabama
SUBJECT: Report of the 1974 Clinical Convention

Your Delegates, Alternate Delegates and Officers who were in attendance at the 28th Clinical Convention of the American Medical Association, held in the City of Portland, Oregon, November 30 - December 4, 1974, are privileged to submit the following report on major actions taken by the House of Delegates.

For a number of years it has been apparent that the American Medical Association was being forced into a financial crisis, due primarily to the fact that its membership has demanded a vast expansion of activities and services despite a deteriorating economy.

Your Delegates gave careful consideration of the fiscal condition and all other problems confronting the American Medical Association at this time and voted with a majority of the members of the House of Delegates for the several remedial actions designed to give immediate relief to the crisis and enable AMA to continue its efforts to preserve and strengthen organized medicine wherever it is endangered.

On the following pages, published for the first time in a new format, are the highlights of actions taken by the House of Delegates. Should any member desire copies of reports or resolutions referred to herein, he may receive a copy by addressing his request to: AMA Delegation, 19 South Jackson Street, Montgomery, Ala. 36104.

Respectfully submitted,

Paul W. Burleson, M.D.

Orizaba Emfinger, M.D.

William E. White, M.D.

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of the

Medical Association of the State of Alabama

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1975

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1976

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THIS SPECIAL ISSUE of the *Journal of the Medical Association of the State of Alabama* comes to the membership as a trail blazer. It is the first *Journal* ever produced in the Association's own printing department.

The type you are reading, the lay-out, the printing and binding were all produced on equipment purchased as a part of MASA's recent expansion program.

This equipment is the most modern and versatile to be found anywhere. For the past four months extensive tests have been run to determine whether the Central Office can fulfill membership needs for office printing supplies. With a very few exceptions, such as complicated computer forms and carbon paper inserts, we have learned that this can be done.

NOW WE ARE EMBARKING on another experiment. We need your frank and honest opinion of this Special Issue of the *Journal* to tell us whether we are on the right track. The available advertising revenue falls far short of editing and publication costs of the *Journal.* Also there is a six weeks time lag between the writing and mailing of the *Journal* which makes it impossible to present timely information of urgent importance.

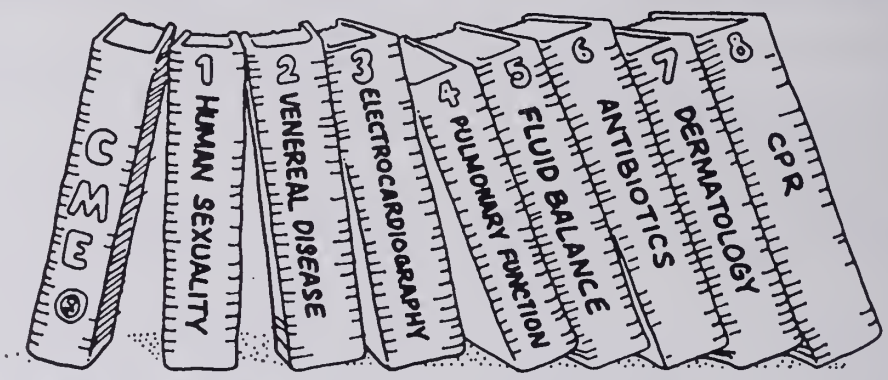
If the membership approves the *Journal* in the type and format which you are now reading, we can cut our publication costs in half and reduce the time span from six weeks to two weeks.

If you like (or don't like) what you see, take a minute to drop us a line. We also would like to have your suggestions for improvement. Just send your comments to: *The Journal*, 19 South Jackson Street, Montgomery, Ala. 36104.

AND SPEAKING OF EXPANSION, our Association-sponsored professional liability insurance program is growing by leaps and bounds, due mainly to the fact that the major carriers are either restricting their coverage to the lowest risk categories or abandoning the market entirely.

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MA House of Delegates cast a show-of-hands vote on a thorny question when Speaker Tom Nesbitt, Tenn., couldn't be certain of tally.

Highlights of House of Delegates Actions

(Delegates' Note: This brief summary, which starts below and continues on pages 3 through 16, covers major subjects considered by the AMA House of Delegates at its 1974 Clinical Convention held November 30 - December 4, 1974, in Portland, Oregon.

(The entire slate of Delegates and Alternate Delegates attended the convention along with President J. Garber Galbraith, M.D., President-Elect E. Vernon Stabler, M.D., Board of Censors Chairman John M. Chenault, M.D., and Executive Director L. P. Patterson.

(Other Alabama physicians who attended the Portland Convention included C. E. Robert Parker, M.D., of Montgomery, Tinsley R. Harrison, M.D., of Birmingham, and Karl B. Benkwith, M.D., of Montgomery.

(Your AMA Delegation will welcome your comments on any activity or decision of the House of Delegates.)

A mandatory, special assessment of $60 for AMA members was approved by the House of Delegates at the 28th Clinical Convention in Portland. The assessment, effective Jan. 1, 1975, for AMA members excluding students, interns and residents, is expected to improve immediate cash-flow problems and help build up depleted financial reserves.

Rejecting a $90 dues increase proposed by the Board of Trustees, Delegates instead called for a Special Committee of the House to study the dues issue and report back at the 1975 Annual Meeting.

Meeting for a total of 16 hours and 40 minutes, one third of it devoted to AMA finances and related issues, the House acted on 77 reports and 68 resolutions for a total of 145 items of business.

In addition to taking a positive step to remedy immediate financial problems of the AMA, the House adopted several measures to improve housestaff participation in the Association, heading off a possible defection. (For more information on these and other topics, see "Association and Internal Matters of the House" beginning on Page 4.)

Summary of Actions

Association and Internal Matters of the House

AMA Finances and Related Matters: In assessing a mandatory $60 special assessment effective Jan. 1, the Delegates acted to strengthen AMA finances.

The House was reminded that the Association has operated at a deficit for four of the last five years, and that cash reserves have been seriously depleted during that time. In addition, AMA finances in 1974 were adversely affected by inflationary pressures.

After almost six hours of comment and deliberation on Tuesday afternoon and Wednesday morning, the Delegates adopted the $60 special assessment as a stop-gap measure.

The question of a dues increase was referred to a Special Committee of the House to be appointed by the Speaker. The committee will make a comprehensive study of the AMA's financial priorities and capabilities, and report to the House at the 1975 Annual Meeting.

In related actions, the House strongly urged the Board of Trustees to restore in a "holding pattern" the structure of several councils and committees which were to have been eliminated, and to maintain present publication schedules for *JAMA,* all specialty journals, and *Prism.*

The House also approved advertising as a legitimate function in AMA publications, and urged that the present full and unrestricted advertising program in AMA publications continue pending further study and a report at the June meeting.

Housestaff Participation in AMA: The Delegates adopted several recommendations designed to strengthen housestaff participation in the AMA.

They include: that the elected Executive Committee of the Intern and Resident Business Session assume advisory responsibilities of the Committee on Housestaff Affairs, which will be dissolved; that programs and priorities of the Department of Housestaff Affairs be developed annually by the department director and the chairman of the I & R Business Session, subject to review and approval of the Board of Trustees; and that responsibility for the editorial content of the Housestaff Newsletter and for the distribution of I & R Business Session reports be exercised by the Session's Executive Committee subject to appropriate approval and review in keeping with Association policies.

In a related action, the House approved an amended resolution calling for the development of model programs to involve medical students in the activities of organized medicine at all levels, and referred it to the Board and the Council on Constitution and Bylaws for implementation.

Professional Liability: During a discussion of malpractice problems, the House adopted a recommendation calling for the Board to give "priority attention" to providing legal counsel and advice to AMA members and state societies in the event their professional liability insurance is not renewed.

The House also emphasized the necessity for state associations to seek legislative remedies for malpractice problems, and directed that the AMA continue to cooperate with the Medical Liability Commission.

Clinical/Scientific Meetings Format Changed: A separation of the fall business meetings of the House and the scientific meetings will be permitted beginning in 1977.

Under bylaws changes adopted by the House in Portland, the House will hold its fall meeting separately in cities recommended by the Board and selected by the House, and the scientific session will hold regional meetings at other times during the year as deemed necessary by the Board and at cities selected by the Board.

The new format was devised to allow regional scientific programming. The scientific assemblies will continue to be held in conjunction with Annual Meetings, however.

In other actions on internal matters, the House:

—Called for a definitive report at the 1975 annual meeting of AMA activities and programs related to PSRO.

—Rejected a Board of Trustees proposal to replace the Council on Legislation and many functions of the AMPAC Board of Directors with a new Council on Public Affairs.

—Referred a report on direct representation in the House of medical specialty societies back to the Council on Constitution and Bylaws for further consideration.

—And adopted a bylaws change permitting past Vice-Presidents of the AMA to become ex officio members of the House (without voting privileges or reimbursement for meeting expenses).

Physicians and Hospitals and Medical Schools

Due Process: The House adopted several recommendations which reaffirm the rights of all physicians, including housestaff and medical students, to due process. In related actions, the House adopted as AMA policy the proposition that a student's academic records should be open to inspection so that he/she may profit educationally; and referred back to the Judicial Council for further study a report involving three cases of alleged violation of due process at the local level.

Guidelines for Housestaff Contracts: The House adopted a set of revised guidelines for housestaff contracts. The proposed guidelines, as revised, had been approved by the Council on Medical Education, the Board of Trustees, and the Council on Medical Service.

Biomedical Research: The House adopted a 10-point statement on biomedical research urging more federal funding with fewer restrictions. Prepared by the Board, the report sharply criticizes federal cuts in independent research grants and in the budgets of the National Institutes of Health.

The report urges that more unrestricted grants be awarded for research; that NIH be given more independence in establishing budget and research priorities; and that appropriations for biomedical research should be in proportion to other health-related spending.

Continuing Competence of Physicians: Delegates also adopted a Board report calling for strong programs of continuing medical education and peer review as alternatives to relicensure since "the difficulties inherent in relicensure clearly outweigh any potential benefits."

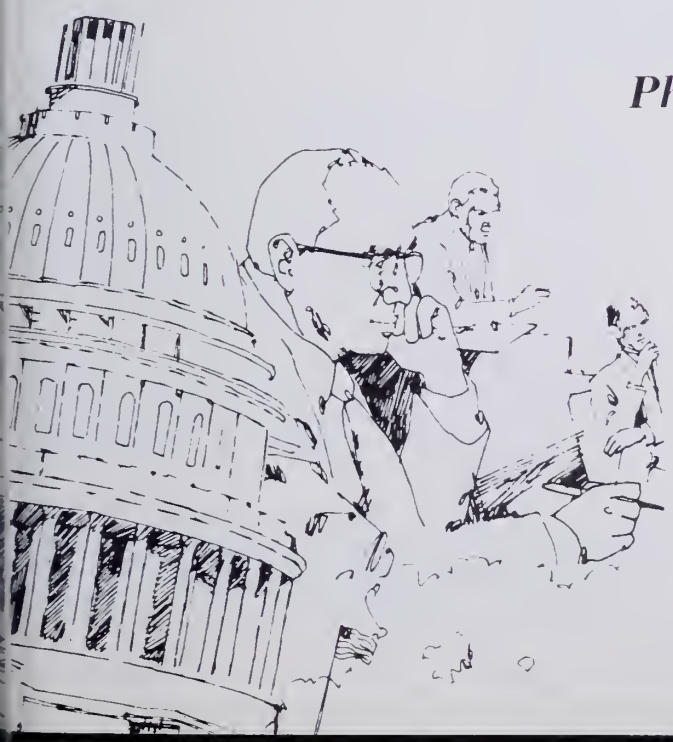
Specific recommendations include all possible encouragement and support for the AMA, constituent societies, JCAH and other bodies in expanding CME programs; that the AMA give high priority to enhancing and reviewing effective methods of continuing competence; that patient satisfaction should be included in performance evaluation; and that well-designed peer review programs be endorsed as an important component of performance evaluation. The House also stressed that evaluation of performance, rather than knowledge per se, is the best method of appraising competence in patient care.

In other actions related to physicians and hospitals and medical schools, the House:

—Adopted an amended resolution which urges that duplication of local peer review procedures be avoided; that medical audit or utilization protocols used in screening be limited to those which are demonstrated to be valid, reliable and which do not add needlessly to cost; and that when local peer review groups recognize that a hospital medical staff has adequate medical audit and utilization procedures, that fact should be recognized by governmental agencies and JCAH.

—Adopted a Board report detailing legally-approved methods for the exchange of information between and among medical societies and hospitals concerning a physician's hospital privileges or practice.

—And requested that a "comprehensive report" be presented at the 1975 Annual Meeting on questions and issues related to foreign medical graduates.



Physicians and the Government

National Health Insurance: Delegates gave the Board of Trustees a vote of confidence for its efforts to develop new approaches to NHI which maintain traditional AMA goals. The House adopted a Board report containing basic guidelines for NHI deliberations.

The guidelines include minimum federal involvement in the administration of any NHI program; state jurisdiction for licensure of physicians and regulation of insurance; no Social Security tax financing and administration of any program; funding through federal revenues, state revenues, and private funds including employer-employee contributions for private health insurance; comprehensive coverage for basic and catastrophic needs; and the maintenance of pluralism in health delivery.

Manpower and Planning Bills: The House adopted an emergency resolution expressing unanimous opposition to U.S. House of Representatives bills which would divide the nation into health service planning areas and treat health care as a public utility, and which would require medical students to reimburse the government for capitation.

The resolution was unanimously adopted on Wednesday, Dec. 4, and its substance presented to House Speaker Carl Albert and other Congressmen.

Prepaid Plans and Bonuses: Delegates adopted a Judicial Council report which cautions that the payment of bonuses to physicians in prepaid health care plans such as HMO's for minimizing the utilization of services may interfere with the physician's obligations to his patients.

In other actions related to physicians and the government (and third parties), the House:

—Objected to language in insurance letters indicating the claims were "not medically necessary," since this encourages patient to decline to pay for services and is defamatory to physicians.

—Urged that Medicare intermediaries adhere strictly to regulations for reimbursement of chiropractors to those procedures defined in the regulations.

—Encouraged the acceptance and use by physicians of the AMA's Uniform Health Insurance Claim Form, and urged insurors to study the possible use of plastic "charge card" type identification cards for imprinting basic data on insurance forms.

—And urged the government to continue its present 55 m.p.h. speed limit for at least a one-year period, noting that traffic fatalities have declined 14.8% since the speed limit was imposed last year.

Physicians and the Public

Weight Reduction Clinics: The House took a strong policy position against the use of human chorionic gonadotropin for use in weight reduction. The House further resolved "that the AMA warn our citizens about the potential danger of such a weight control program." Clinics utilizing chorionic gonadotropin have been established and widely advertised in various parts of the country.

Child Abuse: The House adopted a substitute resolution encouraging state medical associations to survey child abuse laws in their states, and recommend more desirable legislation where necessary.

Health Care for Disadvantaged: "Vigorous, high-priority" efforts to foster health care programs for disadvantaged segments of the population were recommended the Delegates.

The reference committee report noted that the Council on Medical Service will continue to develop and implement long-range strategies to improve health care of the poor. The House requested regular reports of progress made.

Maternity and Newborn Care: The House adopted two reports which reaffirm AMA policy to encourage insurance coverage of the newborn from the moment of birth, urge the health insurance industry to offer coverage for obstetrical care and any complications, and recommend that the insurance industry—as well as government—offer such coverage on the broadest possible basis.

In other actions relative to physicians and the public, the House:

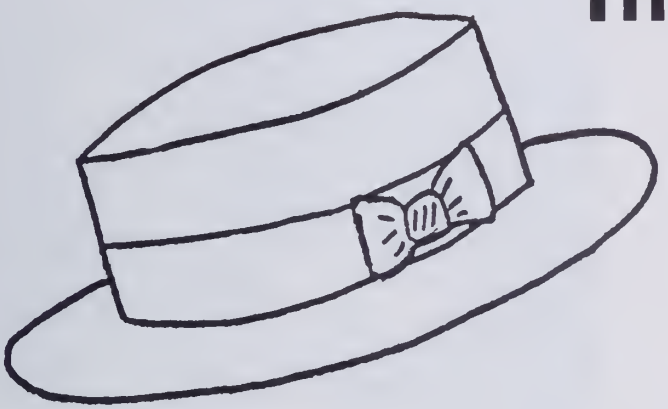
—Supported state legislation to regulate the practice of acupuncture. The new policy says acupuncture should only be performed in research settings by a physician or under the direct supervision of a physician.

—Reaffirmed AMA endorsement of the fluoridation of water supplies.

—Adopted a Judicial Council report which holds that, "It is not unethical for a physician to authorize the listing of his name and practice in a (community) directory for professional or lay use which is intended to list all physicians in the community on a uniform and nondiscriminatory basis. The listing shall not include any self-aggrandizing statement or qualitative judgment regarding the physician's skills or competence."

—Endorsed the right of a physician to dispense ampicillin-probenecid for gonorrhea patients, reflecting a Judicial Council opinion that physicians have a duty to protect the confidentiality of patients who contract gonorrhea.

—And adopted a substitute resolution calling for the government to develop adequate safeguards for the transportation and storage of hazardous materials such as radioactive materials.



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Address of the AMA President



Malcolm C. Todd, M.D., F.A.C.S.
Pleads For United Stand

What kind of an American Medical Association do we want...and what do we want it to do for us? *That,* gentlemen, is the great question before this convention. *That* is the great decision that we must reach together in the days at hand. And *that* is the question that I will discuss with you now.

I stand before you as an officer making his mid-year report...yes. But more essentially, I am here as one professional talking to his fellow professionals. Unless I talk to you in this doctor-to-doctor manner, I cannot say what I want to say about the AMA...or clarify the problems we face. For I believe...absolutely...that our professionalism and this association are inseparable. Without the professionalism that you and I know and cherish, the AMA would not exist. But the reverse is equally true. Without this association, our calling—as you and I know it and love it—could not exist.

If those remarks seem too sweeping, let's just ask ourselves: What *is* professionalism? Is it simply a trade...a set of skills...that anyone with the proper training can pursue strictly on his own? If that's all there is to it, then I say we have no need of the AMA. Is professionalism a manual commodity...produced and distributed factory-style...in accordance with set routines and fixed working conditions? If that's what it should be, then again I say we have no need of the AMA. That's what it has been reduced to in Sweden, of course. A Swedish doctor...after refusing to treat a boy with a bleeding nose promptly...because it was lunchtime...explained to an American visitor: "Professionals who are paid and treated like factory workers, work like factory workers." If we are prepared to accept that demoralization in our own land, then I say we have no need of the AMA.

But...if our professionalism is to be a continued allegiance to human needs...if it is to serve the human spirit rather than be a contraction of that spirit...then we *positively do* need the AMA. If our professionalism requires the freedom to be creative...the freedom that has made American medicine the most creative in the world...then we *do* need the AMA. If that professionalism means medical standards and working conditions set not by government...but by our own devotion to duty and tradition...we need the AMA. And if it also means unity among us...the unity of a

"Without freedom...and the zealous, creative spirit that it stimulates...we have no profession..."

higher purpose than our individual day-to-day routines...then, certainly, we need the AMA and cannot endure without it.

We are professionals not only as individuals...but as a group. And, that being so, we have joint responsibilities to the group. What are these responsibilities? Let me define some of them as I see them. One responsibility is to keep fighting for the preservation of American medicine as an individually motivated science...and as a creative art. Another is to see that the problems of health-care delivery are solved within the present system of care...rather than at the deadly sacrifice of that system. A third responsibility is to retain—and augment—the people's confidence in our medical leadership...which means we must be capable of communicating with them in the best, most trustworthy way. Those are some of our obligations, as I see them. But we cannot fulfill them unless we also see the growing threats to our professionalism.

There is the threat of crisis psychology...rotating from one kind of so-called crisis to another...and now turned, like the cylinder of a revolver, to health care. There are the rapid-fire threats of legislation...such as the proposed legislation that would make health care a public utility...and thus reduce each of us to the level of an electric wire or a telephone line. We must have firm and positive means of resisting the threats ...and meeting our responsibilities.

A first means is to uphold our professionalism on Capitol Hill and Pennsylvania Avenue. We must press for good legislation, such as our National Health Insurance and rural-health bills. And we must withstand the concertedly bad bills. We have scored a number of successes in the weeks and months gone by...but the decisive weeks and months are immediately ahead.

On the issue of National Health Insurance, we've accumulated 182 Congressional cosponsors for Medicredit...and seen its financing mechanism come just one vote short of victory in the House Ways and Means Committee. But...in the weeks ahead...as we face a new Congress...we must re-assess our position ...and consolidate our strength. We must reckon with the prospect that the Kennedy-Griffiths Bill...currently a dead pigeon in the pecking order of NHI bills...might be fluttering its wings again. We must reckon with the loss of some of Medicredit's cosponsors...and the growth in the number of legislators committed to Social Security financing and administration of NHI.

To avoid the worst, we must have sought cooperation from our health-care providers...and other segments of society. We must broaden the base of support for an NHI program that would honor society's needs...without *dis*honoring our professionalism. Accordingly, our Board of Trustees has adopted 14 guidelines that outline our basic NHI position ...and offer a basis for cooperation. Let external support...and all of our internal strength...be brought to bear upon the health insurance issue. But let it be remembered that this issue is not the only battle...in the 94th Congress...or in Congresses to come.

Let us all remember that while NHI may be the flagship of health legislation, it is not the only possible destroyer in the fleet. NHI—if it involves an overdose of government—could injure and constrict us as professionals...but so could the planning bills that would make health care a utility. Even if stripped of their rate-setting powers (as in the House version) those bills would still be utility measures if they call for certification, decertification, and regulation of health services.

The impending manpower legislation could also be damaging—whether it mandates medical graduates to serve where the government pleases, as in the Senate bill...or repay capitation grants, as in the House bill. Both imply indentured service in medical education. Any such measure...singling out young physicians for arbitrary constraints...would be a blow at the freedom of our entire profession. Without freedom...and the zealous, creative spirit that it stimulates...*we have no profession.* Which means that without the AMA to fight for the life of that freedom, we have no profession.

Some of you...and some of your constituents...may question the legislative effectiveness of the AMA. Well...what is effectiveness? Is it the excellent score we have made on a battery of legislative tests? Is it a record that recently included getting HMO modified ...discriminatory controls tabled...PSRO amendments sponsored...and the Keogh Plan liberalized? Or do we have to score 100 to be considered effective? Let us recognize that no element in society has a perfect score...that any element has to set its sights *not* on the best of all possible worlds...but the best of all possible realities. Let's recognize that in a world where medical freedom is the *exception* rather than the *rule*, the AMA...and the AMA alone...has maintained the *exception.*

However, we physicians can be no freer...no stronger...than the people's faith in us. National legislation is made in Washington...but the legislators themselves are made in the voting booth. To keep getting through to the Congress, we must keep getting through to the people. We must look to their goodwill as our mainstay...in all the ordeals ahead. We leaders of medicine command "a great deal of confidence" from far more people than those of any other institution...including the Supreme Court and

the colleges...according to a Louis Harris poll last September. But that confidence can be no greater... and no more widespread...than our credibility. It will dwindle or it will grow...to the extent our credibility dwindles or grows. So one of the principal needs of our professionalism...is to protect that credibility.

Our AMA publications are the chief vehicle of our word...and the truth of that word is said to be suspect...so long as we accept pharmaceutical advertising in those publications. You and I know that informative ads...from responsible drug manufacturers...do not constitute collusion. You and I know that our opposition to any federal drug formulary and compendium...and our reservations about generic drugs...are based on professional concern, not economic interests. You and I further know that our simple advertising relationships are a normal part of the publishing business...and NOT guilt by association. But suspicion is easily planted and spread in these skeptical times...and there is reason to be sensitive to it.

Many of our members feel that the only sure way to prove that the suspicions and slurs are groundless ...and to prove to the bar of public opinion and to Congress that we have clean hands...is to stop the advertising. And the Board is recommending that this issue be studied in all its ramifications during the coming months. *Let me state my personal belief... that pharmaceutical advertising does play and serve a useful role in physicians' education on drugs. I therefore hope to see this carefully evaluated before any final commitment is made.*

But there is a more immediate consideration—since advertising is not directly related to the 1975 budget, it should not be a part of the budget debate. I would ask that there be a division of this question in your own personal deliberations and in the deliberations before our reference committee.

In any case, it is all-important that the publications themselves keep going...and go strong. Now more than ever before, we need them for effective communication and close ties within our profession...and with the public. We must be effective in communicating not only on legislative issues...but on legal issues.

For our professionalism is threatened by a raging legal problem: professional liability. I know that the word "crisis" is overused...but that problem has reached crisis proportions. Our professional security is threatened by the surge in multi-million dollar malpractice verdicts...by premium rates that have leaped far beyond the bounds of sanity...and by a shrinkage in the number of carriers until only a few remain. Our professional courage—which we need if we are to be creative and resourceful—is menaced by the feverish rash of lawsuits...which struck three physicians out of a hundred in 1972. Today, in my state of California, 25 claims are being filed for every 100 policies. Something must be done...and a starting point for any solution is a better understanding of the problem.

We must make the people understand that the lawsuits and awards are eating up more and more of the health-care dollar...and that's *their* dollar. They ultimately pay it...as patients and as taxpayers. A neurosurgeon paying a $15,000 annual premium for $1-to-3 million worth of liability protection must make almost double that amount in fees just to pay that premium. And fees grow as costs grow. Yes, we must make the people understand such facts of medical life...and through them, we must reach their state and national legislators.

We must press for national legislation that would standardize the mechanics of compensation. We need a system that would be fair to both the patient and the physician...a system that would spare the patient from having to take his chances in court...and spare the doctor from capricious and punitive damages. Meanwhile, we must also get state legislators to understand the need for statutory controls on the legal mechanisms of liability. Above all, we must get our whole profession to understand that quality control is an essential safeguard against lawsuits...and that it has to begin with each doctor. I firmly believe that quality control is vital to our professionalism. Certainly the definition of our professionalism includes our discipline of ourselves...and our responsibility to those we serve. All this broad promotion of understanding—this educational campaign of claims prevention—would be a foundation for further efforts. But a foundation has to be laid if later efforts are to succeed.

Within the framework of quality control, we need to be standard-bearers...and standard-setters...in continuing education. We need to create...and plan to create...a center for continuing education...and strengthen and expand our programs in this area. One of the original purposes of this association...127 years ago...was to set standards. And those we must set in continuing education should be a model not only for our own profession...but for all others. I have suggested that the AMA establish a university without walls for such education.

But regardless of the *means* we select, the *end* must be AMA leadership in maintaining our skills. Certainly we should act for ourselves in doing this...instead of letting relicensure act against us. Relicensure... three-digit increases in professional liability premium rates...National Health Insurance...the utility threat...

"Our professionalism is not just your specialties and mine... important as those are. It is all of our specialties...all of our skills and services...all of the missions and dreams that we share. And that is what the AMA is!"



manpower shortages—these are some of the issues we face today. But what will we be facing in the night ahead? That night may be darker than any that we can remember...and deeper than we can even guess.

What does the night hold...when the Forward Plan of the Department of Health, Education and Welfare calls for a "well-planned, concerted set of interventions by the Federal Government"...in the field of health?

What does the night hold...when the regimented health-care systems of abroad...including Britain's which is near collapse...are held up as tantalizing models for an America that abhors regimentation?

What does the night hold...when we physicians are threatened at the very pivot of our professionalism? For if health care is to be a subsidiary of the government, we would cease to be a profession. If it's to become a series of aldermanic wards...with politics having priority over human needs...we would cease to be a profession. If it's to be a factory-style industry... or a Post Office-style utility...we would cease to be a profession. And let me add...in no uncertain terms... that if health care is to be *unionized*...with fixed working conditions, fixed rates of performance, and possibly boycotts or strikes...we would cease to be a profession.

Our professionalism is not just your specialties and mine...important as those are. It is all of our specialties...all of our skills and services...all of the missions and dreams that we share. And that is what the AMA is!

It is impossible, however, for the AMA to be any more effective than its strength. And it is impossible for its strength to be any greater than its finances.

If we want our legislative program to be big enough—and expert enough—to protect our professionalism in Washington, we must pay the price.

If we want our publications to go without advertising...so that they can be credible and influential in these abusive times...then we must pay the price.

If we want to mount a necessary educational and preventive campaign against the growing epidemic of malpractice suits, we must pay the price.

And if the AMA is to pay those costs...and other necessary costs...it must have the money. We've been operating at a deficit during four of the past five years. We've hit bottom on cash reserves. We're doing our best to economize. With great regret, we've begun to jettison some of our programs...and some of our staff. But we can't hack away much more...without crippling the AMA itself...and the missions you want it to achieve.

So to make our AMA financially sound...to make it financially capable...our Board of Trustees is recommending a $90-a-year dues increase. If you do not support this, the necessary alternative will be a special assessment.

What does the proposed $90 dues increase mean to each member individually? In dollars and cents, the total $200 dues would be a very small price to pay when measured against his annual savings from just one piece of legislation gained by the AMA recently ...and that is the liberalized Keogh plan. But we must look beyond dollars and cents...and beyond narrow criteria. We must consider the dues increase not just organizationally...but professionally. We must consider it...not in the heat of the moment...but in the light of tomorrow. In the final analysis, it is up to you—as delegates—to decide what the dollar increase signifies...and whether it is worth that.

But I leave two questions with you: Is the survival of our Association in danger? I say that it is. Is the dues increase the necessary price that we must pay for our survival? Again, I say *yes.* And it seems to me...by God...that no price could be so small...for anything so great.

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Text Of Benjamin Rush Award Presentation By AMA President Malcolm Todd, M.D., to C. E. Robert Parker, M.D.

(Delegates' Note: One of the proudest and most dramatic moments of the 1974 Clinical Convention came when an Alabama physician received the Benjamin Rush Bicentennial Award for Citizenship and Public Service at the jam-packed opening session of the Convention.

(Presented by Dr. Malcolm C. Todd, AMA President, the award consists of a plaque and a $5,000 honorarium.

(Dr. Parker received two standing ovations at the time of the presentation ceremony and a heavy round of applause two days later when it was announced to the House that he would present the honorarium, along with a matching sum of his own, to the Montgomery YMCA.

(The award was established a year ago through a bequest in the will of Thomas G. Sheen of Atlantic City, New Jersey, in honor of his brother, Rodman E. Sheen, M.D. It is named for Dr. Benjamin Rush, one of four physicians who signed the Declaration of Independence.

(Following the presentation of the Award the Alabama Delegation was host at a reception for Dr. Parker and his wife, Ruth, which was attended by the top echelon of AMA leadership and his many friends from Alabama and throughout the nation.)



C. E. ROBERT PARKER, M.D.
Accepts Benjamin Rush Award

The first Dr. Benjamin Rush Bicentennial Award for Citizenship and Public Service was presented last year at our clinical meeting in Anaheim to the honorable Otis R. Bowen, M.D., Governor of Indiana.

This American Medical Association award is presented in cooperation with the Guarantee Bank of Atlantic City as a part of our observance of the bicentennial of the signing of the Declaration of Independence July 4, 1776. It consists of a $5,000 stipend and a galvano medallion of Dr. Benjamin Rush.

As one of the four physician signers of the Declaration of Independence, Dr. Benjamin Rush was the most influential physician in America from 1761 to 1813, not alone from a medical standpoint but as a patriot, a social reformer and a citizen who gave of his time and talents to mold a society worthy of its freedom.

He was born in Philadelphia in 1745, and was awarded his medical degree by the University of Edinburg in 1768, when he came back to this country and became the first professor of chemistry in the colonies.

He was a member of the Continental Congress, Physician General of the Continental Army, a member of the Pennsylvania Convention that ratified the Constitution and was Treasurer of the United States Mint from 1797 until his death in 1813.

Benjamin Rush Award

He is known as the Father of American Psychiatry, the founder of the first anti-slavery society, and a vociferous advocate of penal reform. He was founder of Dickinson College and Franklin and Marshall College, and he helped establish the Philadelphia Dispensary to provide medical relief for the poor, the first such institution in America.

It is a personal privilege to present the 1974 Dr. Benjamin Rush Award for Citizenship and Public Service to Dr. Charles E. Robert Parker of Montgomery, Alabama. The best way to introduce him to you today is to quote in part from a testimonial prepared by Martha Nachman of Montgomery, Alabama.

"This is the story of a doctor-citizen; of a dedicated almost renaissance man whose work far transcends his profession. He long ago dedicated himself to the proposition that a doctor's true mission is to treat the needs and safeguard the welfare of his fellow man in the very broadest sense. And so this man became a doctor-citizen ministering to the broad spectrum of man's complex requirements.

"This man—Robert Parker—calls himself 'just a doctor' and, indeed, the biographical data available in his files reveals simply, 'Robert Parker, Born 1902, Newnan, Georgia; graduated Vanderbilt University 1927; internship, Vanderbilt University Hospital, Nashville, William Parker Hospital, New York; residency, Babies Hospital, New York; five years service U.S. Army, discharged a Colonel; married former Ruth Hackett, two children, son Robert, daughter Alis, five grandchildren.'

"But this man, Robert Parker, early decided that to be a doctor in the true tradition, he had to serve his patients, his profession, his community, his fellow man, in the fullest sense and this is what Robert Parker has done. For 44 years, Bob Parker has ministered to the children of Alabama.



Congratulations from an old friend are extended by Dr. Tinsley R. Harrison (left) of Birmingham.



Mr. Edward Haneman of Gurantee Bank of Atlantic City presents $5,000 check to Dr. Parker as part of Rush Award, AMA President Todd looks on.

"After hospital rounds, after house calls, after many telephone conversations with anxious mothers, Bob Parker finds time, strength and energy to lead his fellow citizens through service to multiple and diverse organizations and civic projects.

"For 35 years, Robert Parker has donated his skill and time to serve as physician to the Junior League Charity Clinic. He also served the Montgomery Junior League as a member of that organization's Advisory Board. The tireless efforts of his service to the Montgomery County Board of Education during his tenure on the Board resulted in acquisition of multiple new school sites.

"His community-wide respect and his keen good judgment proved to be invaluable aids to easing existing strife in Montgomery and averting new crises. Doctor Parker has also found time to serve as physician to the Headstart Program of Montgomery. His dynamic leadership on many committees of the Montgomery Area Chamber of Commerce has prompted many Montgomerians to quip—'Bob Parker is our community's one greatest asset.'

"When Doctor Parker served as Chairman of the Professional Division of the United Appeal, this division made the largest single increase in giving ever recorded.

"Bob Parker's work with the YMCA has reached thousands of young people. For 21 consecutive years this man has served as a member of the YMCA Board of Directors. He conducted virtually a one man drive to build a Y camp—today the value of that facility exceeds a quarter million dollars. Through his leadership of a fund drive for the Y, Bob Parker spearheaded the program to raise enough money to build four Y branch buildings. The YMCA named Doctor Parker Man of the Year.

"The wit, the wisdom, the patience, the leadership, the energy, the drive, the interest, and above all the love Robert Parker gives his fellow man has not

decreased with time. Indeed this continues to move forward in all areas with increased vigor.

"No words written can convey the reality of Robert Parker. One needs years of experience to know the depth of his concern about people. He is man immersed in people. This magnificent man, this gentle man lives by and guides others by his shining example that 'Whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are of good report—think on these things.'"

As in the past, we are pleased to have with us Mr. Howard F. Haneman, Vice-President and Trust Officer of the Guarantee Bank of Atlantic City, New Jersey, and Trustee of the Sheen Estate. We are happy to have him with us to make the presentation.

Mr. Haneman, will you please come to the podium.

Also, I would like to ask Dr. John Chenault, Dr. Paul Burleson and Dr. J. Garber Galbraith to escort Dr. Parker to the platform.

He is truly a modern day Dr. Benjamin Rush. Ladies and gentlemen, I present to you Dr. Robert Parker of Montgomery, Alabama.

Presentation by Mr. Haneman

Doctor Parker, in behalf of the Dr. Rodman E. Sheen and Thomas G. Sheen Trust administered by the Guarantee Bank of Atlantic City, I want to congratulate you as the 1974 Dr. Benjamin Rush Bicentennial Award recipient and to present to you this check for $5,000.

Presentation by Dr. Todd

Doctor Parker, in behalf of the American Medical Association and the Guarantee Bank of Altantic City, I have the privilege of presenting to you the 1974 Dr. Benjamin Rush Bicentennial Award for Citizenship and Public Service. *(present plaque)*

Doctor Parker, before I turn the mike over to you, I have another very special presentation to make—in behalf of the citizens of Alabama, I present to you this beautiful album containing pictures, resolutions, endorsements and letters supporting your nomination for this award.

Response by Dr. Parker

Dr. Todd, Dr. Palmer, Dr. Nesbitt, members of the Board of Trustees, members of the House of Delegates, staff of the American Medical Association, and ladies and gentlemen.

On behalf of my fellow physicians in Alabama and doctors everywhere, I accept this award with deepest gratitude and humility.

It hardly seems possible that 45 years have passed since I began the practice of medicine. It seems even less likely that my pathway should have led me, or would have ever led me, to this occasion of high honor which you have bestowed upon me today.

The Dr. Benjamin Rush Bicentennial Award is far more than sufficient for the services I have rendered.

In simple fact it is not appropriate that I should be here today to receive your expressions of commendations. Rather, I have come here to render my own expressions of appreciation to all of those doctors, and teachers, and people everywhere who inspired me to enter into this exalted profession, who taught me that service to mankind is in itself its own reward.

From the bottom of my heart, and speaking for my family, I say thank you.

They're debating your future in Washington right now. Who's standing up for you?

Contrary to what you may think, the AMA. Sure, we lobby. Hard. And successfully. We've lobbied for more doctors. More medical schools. For clean air and water. For maternal and child programs. We lobby for the rights and interests of doctors and, just as important, for the best medical care for all Americans. With your support we can be even more effective. Find out more about what the AMA does for you and the public. Send for the pamphlet, "The AMA and the American Doctor: Sharing a Common Goal." Write Dept. DW, at the address below.

JOIN US.
WE CAN DO MUCH MORE TOGETHER.

American Medical Association
535 N. Dearborn St./Chicago, Illinois 60610



WILLIAM R. WILLARD, M.D.

Other Awards

(Delegates' Note: The AMA House of Delegates selected another distinguished Alabamian, William R. Willard, M.D., D.P.H., of Moundville, Ala., Dean of the College of Community Health Sciences at the University of Alabama, to receive its Distinguished Service Award to be presented during the 1975 Annual Convention at Atlantic City, June 15-19.)

Dr. William Willard was born in 1908 in Seattle. He received his M.D. degree from Yale University School of Medicine in 1934 and his D.P.H. from Yale three years later. He is certified by the American Board of Preventive Medicine and Public Health.

After early faculty appointments at Yale, he became dean of the State University of New York Upstate Medical Center at Syracuse in 1951. Five years later he left Syracuse to become the first dean of the newly developing College of Medicine at the University of Kentucky. He remained there until 1970 as dean and later as vice-president for the Medical Center. In 1972 he became dean of the College of Community Health Sciences at the University of Alabama, where he is working to develop new community service and family medicine programs.

Dr. Willard served as a member of the AMA Council on Medical Education from 1960-1970 and was its chairman for the last four years of that period. He also served on a number of federal committees in the fields of nursing and public health. From 1962 to 1969 he was chairman of the Health Resources Advisory Committee of the Office of Emergency Planning of the Executive Office of the President.

From 1963-66 Dr. Willard served as chairman of the Council on Medical Education's Ad Hoc Committee on Education for Family Practice. The report of that Committee was published in 1966 and serves as the base for the development of family practice training programs.

In 1970 he received the Distinguished Service Award of the American Board of Family Practice. Dr. Willard was the recipient in 1972 of the Abraham Flexner Award of the Association of American Medical Colleges.

Commendation Resolution: Leo E. Brown, Assistant to the Executive Vice-President of the AMA, was presented with a Commendation Resolution for 24 years of service "to and for American medicine."

Mr. Brown, who will retire early in 1975, joined the AMA in 1950. Serving the House of Delegates at Annual and Clinical Conventions was one of his primary responsibilities.

Citation of a Layman: Harry Schwartz, Ph.D., Visiting Professor of Medical Economics at the Columbia University Colleges of Physicians and Surgeons on leave from the Editorial Board of the *New York Times*, was selected to receive the Layman's Citation for Distinguished Service.

Dr. Schwartz, of Scarsdale, New York, is the author of *The Case for American Medicine*, a book published by David McKay Co. in 1972. He was the first non-physician to be invited to join the Allen O. Whipple Society, and delivered the Martin Memorial Lecture to the American College of Surgeons in 1973. His AMA award will be presented at the 1975 Annual Meeting.

Special Award for Distinguished Service: Ernest B. Howard, M.D., M.P.H., Executive Vice-President on leave from the AMA who will retire March 1, was given a Special Award for Distinguished Service by the House.

Dr. Howard, who joined the AMA in 1948 as Assistant General Manager, was given successive promotions until 1969, when he was named Executive Vice-President. Dr. Howard's prior experience included positions with the Massachusetts Department of Public Health, the Surgeon General's Office of the U.S. Army, and Chief of the Field Party to Peru of the Institute of Inter-American Affairs.



AMA Executive Vice-President James Sammons, a native of Barbour County, Ala., bids farewell to his predecessor, Dr. Ernest B. (Bert) Howard.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral—Adults:* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d. Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) *Capsules*, 5 mg, 10 mg and 25 mg —bottles of 100 and 500; Tel-E-Dose® packages of 100. Libritabs® (chlordiazepoxide) *Tablets*, 5 mg, 10 mg and 25 mg —bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.

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to help reduce clinically significant anxiety and thereby help improve patient receptivity

Librium® up to 100 mg daily in severe anxiety (chlordiazepoxide HCl)

Please see following page.



Symptom of excessive anxiety:

The patient may have difficulty in accepting medical counsel.

Clinical experience has shown that some unduly anxious patients may tend to deny or minimize their illness and therefore resist seeking or following medical advice. Through its antianxiety action, adjunctive Librium (chlordiazepoxide HCl) can often calm the emotionally tense patient, thereby encouraging physician-patient rapport and, on occasion, making it easier for the patient to accept medical counsel.

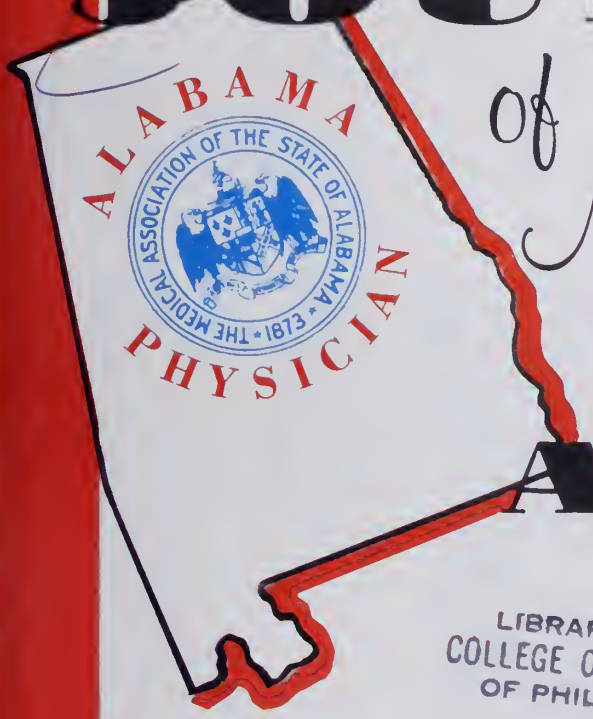
for relief of excessive anxiety

Librium® 10-mg capsules
(chlordiazepoxide HCl)

Please see reverse side
for summary of product information.

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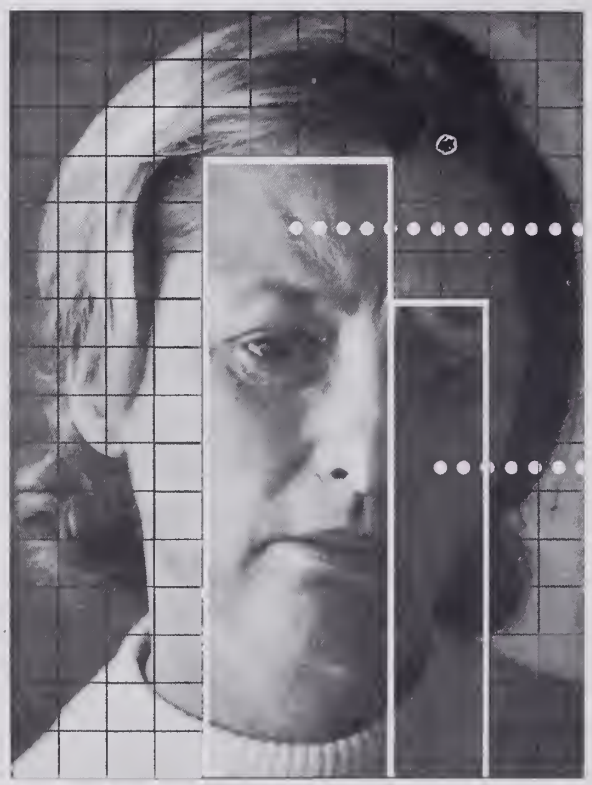
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JUNE 1975

vol. 44 #12

Both often



Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

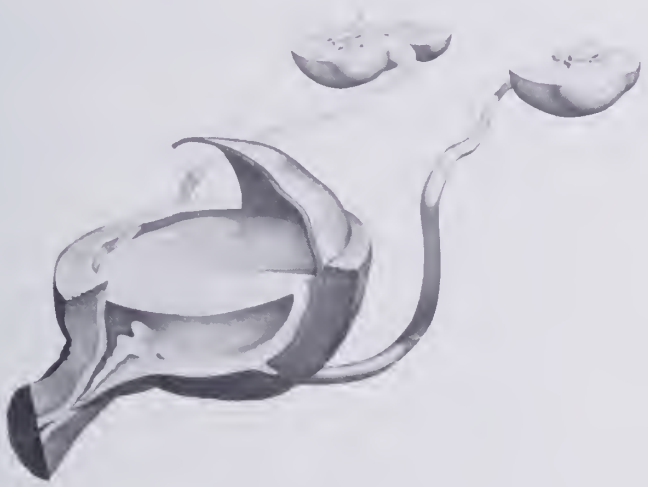
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and mus cle cramps, vomiting and sweating). Keep addiction-prone individuals under careful

In patients with chronic or frequently recurrent urinary tract infections

Bactrim™ outperforms ampicillin.

In new multicenter studies a higher percentage of Bactrim-treated patients maintained clear cultures for four, six and eight weeks.

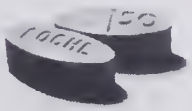
See charts on following page for details of studies.



For chronic cystitis or pyelonephritis evidenced by persistent bacteriuria, frequently recurrent infections or infections associated with urinary tract complications, when infection is due to susceptible organisms.

Bactrim™

(80 mg trimethoprim/400 mg sulfamethoxazole)



Before prescribing, please consult complete product information, a summary of which follows:
INDICATIONS: Chronic urinary tract infections evidenced by persistent bacteriuria (symptomatic or asymptomatic), frequently recurrent infections (relapse or reinfection), or infections associated with urinary tract complications, such as obstruction. Primarily for cystitis, pyelonephritis or pyelitis due to susceptible strains of *E. coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris* and *Proteus morganii.*

Note: The increasing frequency of resistant organisms limits the usefulness of antibacterials, especially in these urinary tract infections.
The recommended quantitative disc susceptibility method (*Federal Register* 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy, "Intermediate susceptibility" also indicates a likely response and "Resistant" that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted. Data are insufficient to recommend use in infants and children under 12.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

DOSAGE: Not recommended for children under 12.
Usual adult dosage: 2 tablets b.i.d. for 10 to 14 days.
For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	2 tablets every 24 hours
Below 15	Use not recommended

Supplied: Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10.

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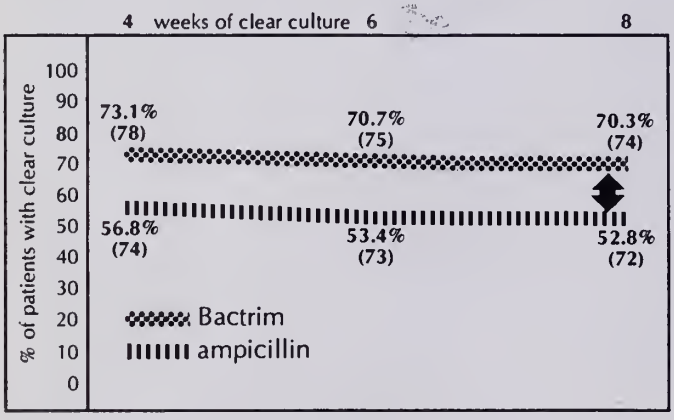
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In new multicenter studies of patients with chronic or frequently recurrent urinary tract infections

Bactrim™
(80 mg trimethoprim/400 mg sulfamethoxazole)

outperforms ampicillin

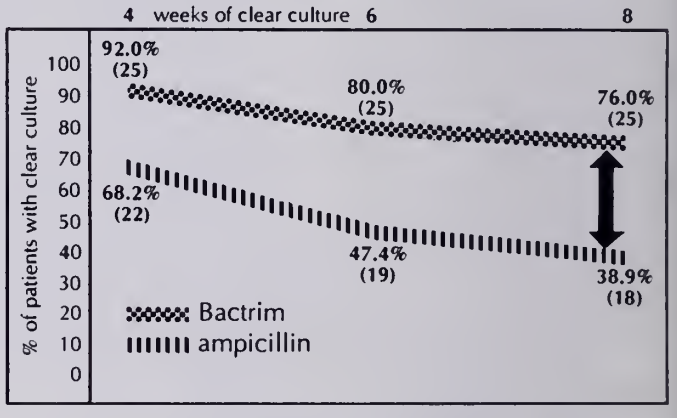
Bactrim vs ampicillin. 10-day therapy. 157 patients.



Criterion for clear culture: 1000 or fewer organisms/ml of urine.
Numbers in parentheses: No. of patients evaluated for this time period.

17.5% The Bactrim plus.
Patients maintaining clear cultures for 8 weeks
Bactrim: 70.3%
ampicillin: 52.8%

Bactrim vs ampicillin. 28-day therapy.* 53 patients.



Criterion for clear culture: 1000 or fewer organisms/ml of urine.
Numbers in parentheses: No. of patients evaluated for this time period.

37.1% The Bactrim plus.
Patients maintaining clear cultures for 8 weeks
Bactrim: 76.0%
ampicillin: 38.9%

In two multiclinic, double-blind studies of patients with chronic or frequently recurrent urinary tract infections, Bactrim maintained a higher rate of clear cultures than ampicillin. All patients had "significant bacteriuria" (100,000 or more organisms/ml of urine) on two consecutive pretreatment cultures; many had previously undergone multiple treatment programs and/or surgery. Organisms were *E. coli* and *Proteus mirabilis*.

Side effects were relatively mild (e.g., nausea, vomiting, rash), but more serious side effects can occur with the agents studied. Please consult the manufacturers' product information for all warnings, precautions, contraindications and adverse reactions.

*While the usual therapy regimen for Bactrim is 10 to 14 days, patients with chronic urinary tract infections can be and are treated for substantially longer periods with standard agents such as ampicillin. These studies, therefore, include both 10-day and 28-day courses of therapy. In both studies dosage was one 500-mg ampicillin capsule q.i.d. or two Bactrim tablets b.i.d. plus placebos to make each drug regimen appear identical.

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Please see preceding page for summary of product information.

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